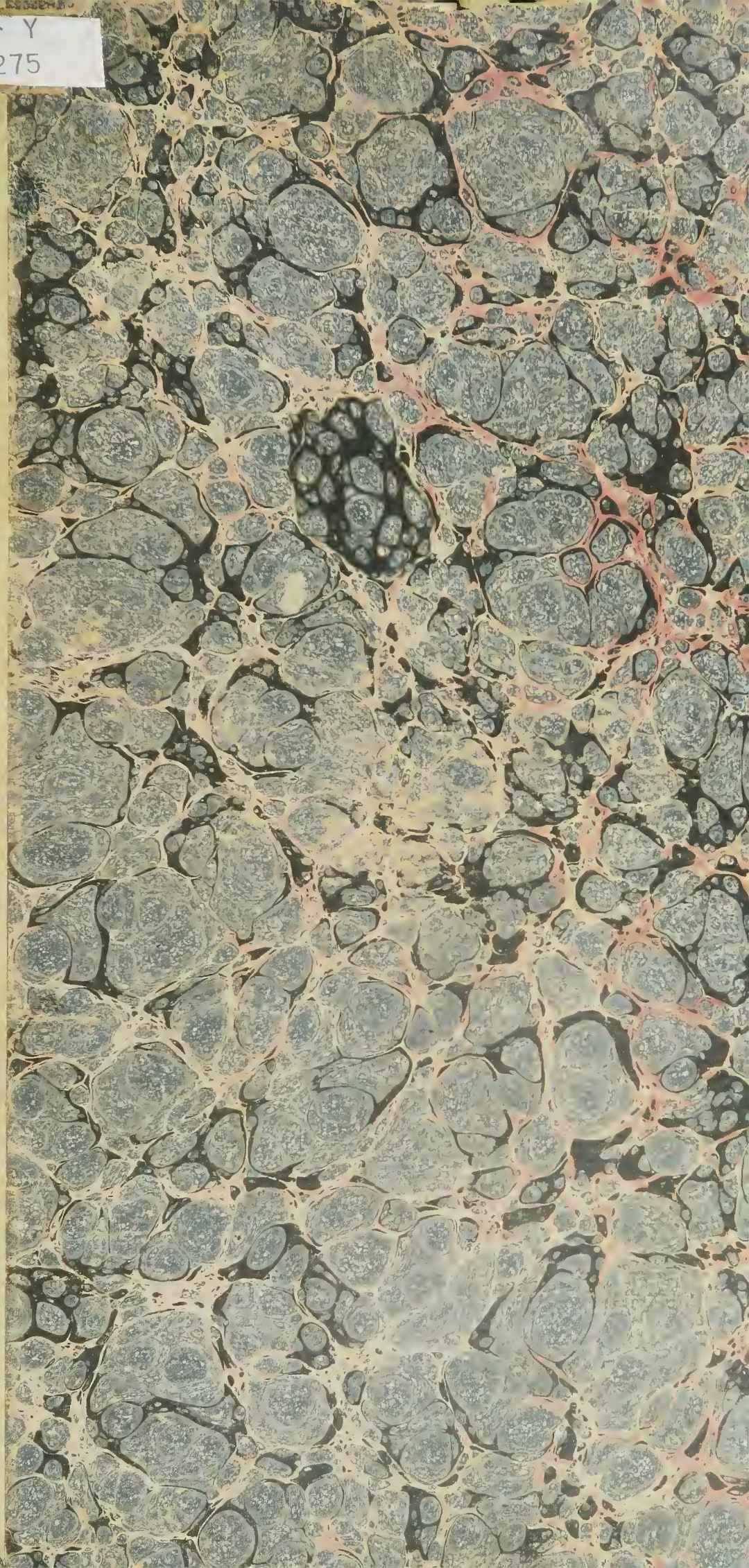


THE LONDON CHAMBER OF COMMERCE.

(INCORPORATED.)

Report of Proceedings

AT A

CONFERENCE ON COMMERCIAL EDUCATION

HELD

(By permission of the Corporation of the City of London)

IN THE COUNCIL CHAMBER OF THE GUILDHALL,

KING STREET, CHEAPSIDE, E.C.

ON FRIDAY, THE 8TH JULY, 1898, AT 10.30 A.M.

SIR ALBERT K. ROLLIT, D.C.L., LL.D., M.P.

(President of the London Chamber of Commerce, and Chairman of its Commercial Education Committee),

IN THE CHAIR.

LONDON:

—WATERLOW AND SONS LIMITED, PRINTERS, LONDON WALL, E.C.—

A

INDEX.

PAPERS.

SPEAKERS.

OPENING SPEECHES.

THE CHAIRMAN: Sir John Gorst, my Lords, Ladies and Gentlemen,—This Conference has been called by the London Chamber of Commerce for the consideration of the subject of Commercial Education, by which we mean the greater and more general adaptation of our educational system to commercial ends and to the purposes of modern business life, the increase of facilities for training for trade, and the fuller recognition of the necessities which surround men and women in this working-day world, without, at the same time, surrendering that general education which we recognise as the necessary basis of all public instruction, or sacrificing the means and instruments of intellectual discipline, which we believe can be furnished by almost any subject if properly taught. (Hear, hear.) I think I may congratulate the Chamber and the country upon the response which has followed that invitation in this very numerous and representative gathering. We have here, and I am sure we accord him a most hearty welcome, the Vice-President of the Council, our Minister of Education. (Cheers.) We have representatives of State education; we have statesmen of all political parties and of high educational authority; representatives of the municipalities, including borough and county councils, and municipal, technical and other institutions; of the school boards; of the City companies, which, not only in London, but throughout the country, have rendered so much aid, and which, we hope, will render more; and of our secondary and technical schools—in all, some four hundred public institutions and individuals—an assurance, I venture to think, of thoughtful and deliberate consideration of this great educational problem, and of combined practical effort, with a view to its successful solution by uniting commerce with culture. (Hear, hear.) The London Chamber of Commerce was impelled, when it took the initiative in commercial education some ten years ago, by practical experience of the condition of affairs in the City of London. It was struck by the paucity and inadequacy of the means for commercial education, and the want of adaptation of existing means to the ends in view; and it found, by systematic enquiry, that our City offices were crowded with foreign clerks, while, at the same time, there was not only a desire, but a demand, for the services of our own countrymen, provided they had the necessary qualifications. (Hear, hear.) I also think those who have taken an interest in this subject have gradually realized some of the chief causes of what I may call this congestion from the Continent. (Laughter.) Among them have undoubtedly been the greater attention given to commercial methods of instruction abroad than in our own country; the neglect of the means and methods of modern commercial transactions; and the greater cultivation abroad, and the comparative want of cultivation at home, of the chief instruments of international trade, and especially the study, colloquially, of foreign languages. (Hear, hear.) In consequence of this the London Chamber has done its best, under some difficulties, both by teaching and example, by lectures and classes, by scholarships and prizes, to influence public thought and to supply the want that has been so generally felt; and I am happy to say that to-day there has, at least, been some improvement in the supply of qualified clerks in our City, and that there has been and is no difficulty whatever, but the contrary, in obtaining remunerative employment for those who have taken the steps necessary to qualify themselves for business life. (Hear, hear.) But perhaps, Ladies and Gentlemen, the best result of what has been done has been the focussing of public attention upon this great question; the improvement of the teaching and curricula in nearly all our metropolitan, and many provincial, schools, and the prospect which, thanks to the co-operation of the London County Council and its Technical Board, now presents itself of having in the City of London that commercial college which we have proposed, and one which promises to be, at least, an approach to similar institutions which exist in so many centres of trade upon the Continent. (Cheers.) In this national need, Ladies and Gentlemen, as too often, we are behindhand; and, perhaps, one of the most useful features of to-day's programme will be that in which you will be told, by high authority, what has already been accomplished on the Continent. And I may say, from personal knowledge and observation, that it is difficult to realise the importance of this question unless those who are interested in it have visited, as I have done, such institutions as the higher Institutes and Schools of Commerce in Paris, founded, in a very large measure, by the Chamber of Commerce of that city, and similar institutions in Bordeaux, in Genoa,

where the Royal School of Commerce is the result of the combined action of the State, the Municipality, the Province and the Chamber of Commerce, and elsewhere, and the University of Commerce, of which you will hear something, which has been established in Leipzig; and I venture to hope that this experience will not be without its effect upon those discussions which are shortly to take place in relation to the foundation of a teaching university in London, and that this, the greatest of all commercial cities, will, at last, possess a many-sided University, wide and practical in its character, and recognising applied science, economic science and commerce, not only for its diplomas, but even among its faculties, and one in which the highest and best training and instruction will be placed at the service of the City and the nation. (Loud cheers.)

Ladies and Gentlemen, this much may be said to have been accomplished; but this Conference is required in order that it may lead the way, after common deliberation, to combined and practical effort. We hope that its chief results will be to avoid some mistakes made in other branches of education by co-ordinating our plans and procedure, so as to escape a waste of both means and work; to enable us to establish some common principles of joint action; to arrive at some general idea of what the course and standard of instruction ought to be, and to declare more definitely what we ought to aim at, and how it can best be accomplished. (Hear, hear.) To-day, those who are able to speak with authority on these subjects meet together, and we trust that the outcome of their deliberations will be some general guidance for the community on this important subject, and rapid and effective action towards the objects we have in view. The Conference will, we trust, consider education from the point of view not only of educationalists, but also of men of business. (Hear, hear.) We hope that commerce will say what it wants, or, rather, demands, and that the experts will tell us how this demand can best be met, not necessarily by supplanting, but rather by supplementing, the educational machinery we already possess, and by the adaptation of existing, no less than new, means to the purpose in view, and so how best to justify the State, the City, and municipal and other authorities in rendering the necessary financial aid in the interest of the whole community. (Cheers.)

And it is right, I think, that this educational revival should emanate from the City of London—from that City which is the heart of a great commercial empire, and the chief centre of the commerce of the world. We may well paraphrase the observation of a distinguished Frenchman at the Chamber of Commerce of Bordeaux by saying, "The Empire is Commerce," especially when we remember that the best work and results in commercial education abroad have been attained by, or in association with, the Chambers of Commerce. (Hear, hear.) But, above all, in thanking the Lord Mayor and Corporation of the City for the privilege of meeting in this room, we cannot forget that we do so with the advantage of great and stimulating historical traditions.

In this Guildhall we meet under the shadow of that Gresham College which forms one of the great landmarks in the history of education in this country. (Hear, hear.) The time was when England led the world, not merely in her rising commerce, but in commercial education; when, in the 16th Century, not only that College, but the very lanes and alleys of the City, were crowded with its students. Nay, more, King Francis thought the lesson so great and so useful, that he sent over to this country a Royal Commission, which resulted in the establishment in Paris of the great Collège de France. (Cheers.) Such remembrances are inspiring, and will, I hope, influence our debates, and enable us to do something as worthy and fruitful of the education and commerce of the 19th as those earlier efforts were of the 16th Century. (Cheers.)

I have only one word, Ladies and Gentlemen, to say, in conclusion, upon our procedure. We have a long, but, I hope, a practical programme before us. We have many who desire to address the Conference, and I hope that those who wish to do so will hand in to me their cards, and I will take the first opportunity of calling upon them. But we wish to hear so many, that the Committee has been compelled to limit the length of the papers to about a quarter of an hour, and of the speeches to about seven minutes; and with this object I shall sound two bells, the first of which will be a warning, and the second a command (laughter); and I may add that the seven minutes are not necessarily to be occupied by those who speak. (Laughter.) An official report of the proceedings will be taken and published, and it is to be hoped that before

the close of the Conference some organized means may be adopted, by at least a general resolution, of making its deliberations not only useful for thought, but capable of practical and advantageous application. I have now, Ladies and Gentlemen, to ask you to join with me in welcoming to the Conference Sir John Gorst—(cheers)—a statesman who has the courage of his convictions (Hear, hear) and who, in coming here, has rendered one more service to national education, and I am quite sure that the address to which you are about to listen, endorsed as it will be by his high position and authority in Parliament and elsewhere, will not only be useful to the Conference, but beneficial to the cause of national and commercial education. (Loud cheers.)

THE RIGHT HON. SIR JOHN E. GORST (Vice-President of the Committee of Council of Education): Mr. President, Ladies and Gentlemen, I have been invited by those who called this Conference to say a few words to the delegates before the actual business commences, but not with the view of anticipating the discussion in which you will be engaged. The practical point of your meeting will be treated by gentlemen who are well qualified to write papers on the various subjects which will be brought before you, and by discussions in which, I have no doubt, those who take part will be persons well qualified, by their knowledge and their position, to give advice to the Conference. But my part is rather to assure you of the great interest with which a movement of this kind is watched by Her Majesty's Government, and by all those who are interested in the welfare of the country, and to say, perhaps, a few words as to the principles which will underlie your deliberations. We live in an age in which commercial pursuits, like all other pursuits, are open to the competition of the whole world; and if our country is to hold that position in the world which she now occupies, and to which the ability and the industry of her people have elevated her, we must not be content with relying merely upon the capacities of the inhabitants of these islands and the hereditary qualifications which they enjoy, but we must arm them for the battle of life with the same weapons that our competitors possess. (Cheers.) When you talk about the importance of technical and commercial education to some people, they reply to you by assuring you that Englishmen and Scotchmen have always been distinguished for their energy and for their ability, and that whatever their foreign competitors may learn, or whatever study they may have recourse to, the inhabitants of these islands will beat them in the race. I recollect when exactly the same argument was used about the British navy, in days not so very long ago, when the public opinion of the country had not been converted to the necessity of sending our seamen to sea in the best ships and armed with the best weapons that could be procured. People said, "Oh, the British seaman is so superior to the seaman of any other nation that you may put him into what ship you like, with less thickness of armour, less speed, less guns, less tonnage, and he will always succeed in beating his opponents." Well, that argument I think everybody would now scout. But very much the same argument I hear used constantly on the subject of education. The public opinion of the country is by no means yet advanced so far as to see that if you are to keep your present position in the world it will be by having a people who commercially, industrially, and with the great scientific progress in knowledge which our age has developed, are as well armed for the contest as their foreign rivals. (Cheers.) From this point of view, the efforts which foreign nations are making in commercial and technical education are just as important as the progress they are making in ship-building and the development of arms of offence, and the man or woman who is content to leave our people intellectually inferior to those with those with whom they will have to contend in the peaceful arts, are no better friends to this country than those who would leave us comparatively defenceless and allow our rivals and our opponents to have ships and guns and materials of warfare far superior to our own. (Cheers.) That is one principle which will underlie all your deliberations, and another principle, which I hope you will forgive me, as so much concerned now with the popular education of the country, trying to impress upon you, is this: that all education of every kind is indissolubly linked together. (Cheers.) You cannot build a superstructure of art, of science, of commerce, or of technical education, unless you have a sound and solid base upon which to build. (Cheers.) And on the other hand, there is no use laying sound and solid foundations unless you proceed to construct something upon them.

(Hear, hear.) And, therefore, I hope that in all the discussions it will be remembered that before any kind of special instruction can be engrafted in the minds of the people, their intellects must be awakened, their capacities must be called forth, and they must be prepared to receive that instruction. You cannot have high commercial education unless you have got a solid basis of elementary education on which to build. (Cheers.) Now, of course, the principal business of this Conference will be directed to the consideration of the means of specialization, but in those deliberations do not forget that in the case of every boy or girl, to whatever class of society he or she may belong, the first years of education must necessarily be devoted to general education. (Hear, hear.) Their intellectual, and even their bodily capacities, must be, to some extent, developed. You cannot take an ignorant lout of 16 years of age, who can neither read well nor write well, who does not understand the common principles of arithmetic, who has not had his eye trained and his hand trained in artistic or mechanical pursuits—you cannot take a boy (or even a girl) of that sort and make a sound, commercial, qualified person of him. You must take care that in your primary schools, and in your secondary schools, a proper foundation is laid. (Hear, hear.) At what particular age specialization should begin, in what sort of institutions it should be carried on, and how it should be perfected, are all matters which the Conference is best qualified to consider and to determine. Those are exactly the points—the practical points—on which the experience of those here present, and the experience of foreign countries which have been making the same experiments, are most valuable. But remember, in all your deliberations upon specializing education, the fundamental fact that you must have a sound and a solid bottom on which to build. (Hear, hear.) People have sometimes accused me of being a pessimist. I am not at all a pessimist in the education of this country. (Cheers.) In spite of all our drawbacks, in spite of all the obstacles which have impeded us, we have, during the past quarter of a century, made enormous progress. (Cheers.) I do not know that he is a particular friend to progress who refuses to open his eyes and see the obstacles to still further progress. (Cheers.) But if, as I fully believe, the nation is determined to go on in the course which it has pursued in the last five and twenty years, I am perfectly convinced that whenever the people of this country come to understand, as I think they are beginning to understand, the necessity of further efforts and further exertion, and more special schools, and more special colleges, you will find the energy of the British race, upon which people so justly pride themselves, will, if it cannot bring us immediately into the first rank of European countries, at all events induce the people of this country not to sit down in any secondary place, and will, in due time, make this country in the future as it has been in the past, one of the greatest and one of the most intellectual countries in the world. (Loud cheers.)

I.—COMMERCIAL EDUCATION IN SECONDARY SCHOOLS.

Rev. C. W. Bourne, M.A. (Head Master of King's College School, Wimbledon), read the following Paper :—

To avoid any misunderstanding, I wish to state at the outset that by "Commercial Education" I do *not* mean the teaching of "Commercial" subjects, but the imparting of a general education of such a nature as shall best fit youths for commercial pursuits. It is not the part of a Secondary School to teach specialised commercial subjects, such as "Counting-house operations"; and any attempt to do this is sure to be attended by damage to the general education of the pupil.

Such specialised training is eminently desirable, but it ought to be given (as in the case of the professions) in certain institutions of the rank of University Colleges—institutions to which the name "tertiary" has been sometimes applied. Such institutions are practically non-existent in England, and one of the results which I most earnestly desire from this Conference is the foundation of one or more Commercial Colleges, which shall do for commercial education what University College and King's College, and similar institutions, are doing for professional education.

Now, in designing the general education suitable for those who are to take up a commercial career, we have to provide for two distinct classes—for boys who will leave school at the age of 15 approximately, and for boys who will remain at school till they are 17, or thereabouts. My remarks will be confined to the latter class, as my experience has been mainly formed in dealing with this class.

In designing the curriculum for such youths, one must bear in mind that they will themselves, in all probability, at some future time hold high positions in the commercial world, and upon them will depend the commercial success or failure of the kingdom. Their training must therefore not merely equip them with a certain amount of knowledge, but it must render their minds capable of receiving and assimilating new ideas; it must train their powers of judgment, and give them habits of careful investigation into points of detail, and, above all, must give them wide powers of sympathy with interests other than their own. This last is a matter of great importance; the man of influence is the many-sided man, who, while resolutely forming his own opinions, can appreciate the point of view of others, and can, as it were, look at matters through other people's spectacles.

And here I should like to digress for a moment to allude to the bugbear of "the competition of the German clerk." We are often told that the German clerk is ousting the Englishman in houses of business because of his superior education. Now, the German clerk may be, and often is, better educated than his English rival; but that is only a small part of the matter. The German clerk has been trained in habits of hard-work, of plain living, and of steady perseverance, and it is these qualities which make him such a formidable rival. When English parents will bring up their boys as German boys are brought up, the danger of rivalry will be at an end. It is a matter far more for the parent than for the schoolmaster. We teachers have constantly to deal with boys whose home training is such as to inculcate self-indulgence as the guiding principle; who are accustomed to an extravagant use of money for their own enjoyment; and who have hardly learnt what the words "self-denial" or "self-restraint" mean. This is a strong indictment, but I fear that it is a true one, and that in a large number of cases parents have not the moral courage to say "no" to their children.

I have digressed to this topic because of its important bearing on the general subject of education; I will now return to the consideration of the subjects desirable for the education of those who are to conduct the commerce of the country.

In the first place, then, comes a study of modern languages, together with a thorough study of our own language. I need hardly prove what is now almost an axiom, that an intelligent knowledge of English is of the greatest help to the acquisition of other languages. With regard to the modern languages that are to be selected, custom has prescribed French and German, and on the whole the choice is a wise one, if an opportunity is also afforded of acquiring Spanish if necessary. A most thorough linguistic training can be afforded through French and German if they are properly taught on one uniform system. The chief reason why English boys have not, as a rule, been successful in acquiring these languages at school is the want of any recognised system of teaching them.

If a head-master appoints a master to teach classics or mathematics, he knows that he will fall in with the system employed in the school, and that the work throughout the school will be continuous; but if he appoints a modern language master, however able and experienced he may be, the result is probably "chaos." It is true that there are some head-masters whose experience of modern languages is sufficient to enable them to devise a good system of modern language teaching, but in the majority of cases this is not so. As soon as the teaching of French and German is put upon a satisfactory basis of system, schools will turn out satisfactory results; this is work which ought to be undertaken by the Modern Language Association, and I was in hopes that it would have

been accomplished before now, as a result of my strenuous representations; but I fear that timidity or apathy is supervening. The whole question of success in modern language teaching turns on this one point of "system."

One further remark I should like to make on this subject: whenever a system of teaching French and German in our schools is devised, I trust that it will recognise one or two facts, such as (i) that a living language must be learnt principally through the ear, rather than the eye, at all events at first; (ii) that a mere "courier" knowledge of a language is not sufficient, but that the intelligent study of a language must comprise its literature, and also the essential points in which the language differs from our own; in other words, we must early recognize the fact that when a foreigner wishes to convey a statement, not only does he use words which differ from ours, but he casts his ideas in a different mould. Thirdly, some attempt at least should be made to teach "phonetics." If a German hears a word which he has a difficulty in reproducing, he can write it down phonetically, and practise it at leisure; the Englishman has generally no such resource. Lastly, one should learn that language is a means of conveying "exact" thought, and that a slip-shod use of it is demoralising. How often, for instance, do we hear the statement that a person "walked up the centre of the room," when "the middle" of the room is intended. If these points are attended to, there is no reason why the study of language should not be as exact a training as the study of science.

In teaching French and German to a boy in a secondary school, even if the boy is to go into commerce, I do not think there is any necessity for teaching "commercial" words and phrases; a boy who is master of these languages will soon pick up the eccentricities of commercial phraseology.

Next in importance I should name Arithmetic, not only on account of its practical utility in commerce, but because of its excellent training, especially if it is extended to cover what is usually classified as Algebra, though it is essentially arithmetical in its nature. Euclid, especially as a training in logical thought, should also most certainly be included. Of course, if a boy has aptitude for Mathematics, it will be of great service to him to give him an extended course of the subject; but even the non-mathematical should cover the ground I have specified.

Next will come the study of Science, provided that it is pursued on an intelligent system—that is, on some such system as is so deservedly associated with the name of Professor Armstrong—a system in which experiment and discovery *by the pupil* have taken the place of the old method, under which a boy's mind was regarded as a portmanteau, to be packed with a neat assortment of carefully-isolated facts.

Next to this I should put History, provided it is intelligently taught. If a pupil is led to believe that History is a mere collection of facts and dates, the study will be a dismal one; but if he is shown that all the facts have causes, that these causes originate from our human nature, and that because human nature is much the same at all times and places it follows that "history repeats itself," then the study of History may be made both interesting and valuable.

Geography also must be taught, and taught intelligently, as it now usually is, I think; there are few subjects in which there has been more improvement of late. I should like to answer here one complaint which is often made against schools; it is frequently said that schools do not give to Geography as much time as the subject deserves and requires. Now, one of the chief difficulties a Head-master has is to find adequate time for all the subjects demanded of him; consequently, it will often be the case that he has to allot to a subject less time than it deserves. In deciding which subjects should be stinted in time, a Head-master must consider whether in any of them there are opportunities for study besides those which are afforded at school. Now, Geography is the one subject which we all of us go on learning (whether we wish it

or not) all through our lives; it is, therefore, only reasonable that it should give way to subjects which are never learnt unless they are learnt at school.

Essay writing, and composition generally, will be comprised under that teaching of our own language to which I have already alluded.

Drawing also should be generally taught, except in cases where there is an invincible incapacity; and so taught as to educate eye, hand, brain, and power of observation.

I should also include the two more essentially commercial subjects, Shorthand and Book-keeping, though I do not consider it to be the duty of a secondary school to carry either subject to a high pitch of perfection. If a boy is thoroughly taught the elements of Shorthand he can rapidly improve himself in spare moments without devoting school-time to this improvement—that is to say, if he is in earnest about the subject; if he is not in earnest, he will never do any good in the subject, however much time is allotted to it. The study of Shorthand may be made a useful training in phonetics, about which I have spoken above. The study of Book-keeping is chiefly valuable for its training in accuracy, method and precision; when these qualities have been acquired Book-keeping *at school* has done its work.

In the above remarks I have indulged in many statements which a schoolmaster will regard as common-place platitudes, but I thought it wiser, in a paper designed to elicit discussion, to put down too much rather than too little.

Finally, if schools are to turn out pupils well suited for commercial life, business firms must give the encouragement which can only be given by their finding employment for suitable pupils; it is disheartening to be told, as I have been on two occasions, that one's pupil is "too well-educated" for the firms into which he was seeking admission.

Dr. Richard Wormell, M.A. (Head Master of the Central Foundation School, Cowper Street, E.C.), read the following Paper:—

Do we all understand the same thing by the two notions here brought together—Commercial Education and Secondary Schools? To make oneself intelligible, it is necessary to make clear what we understand by the terms used. It is preferable that we should differ after understanding each other than that we should agree in conclusions that are only verbal.

The first phrase has evidently something to do with trade. But the word *trade* is used in different senses. It often means "Commerce" or "Exchange." Yet we sometimes speak of a handicraft as a trade. It is therefore applied both to producing and selling, and its ambiguity makes it not altogether suitable for our present discussion. Now, as I pointed out as far back as 1869, and have often repeated since, we may range all the occupations connected with Trade, in any of its forms and applications, under two heads. The whole of the businesses connected with the industrial life of the land may be roughly divided into two departments—the department devoted to production, and that restricted to interchange or commerce. This is not a distinct classification, for the second overlaps the first. The manufacturer of shoes, for instance, must necessarily be a shoe vendor, but a shoe vendor need not necessarily be a shoemaker. Yet we shall not go far wrong for our purpose if we mark out the two departments—Industry and Commerce—or Production and Exchange. These are helpmates, and our aim at present is to avoid giving to Production a defective and crippled helpmate.

The terms Technical Education and Commercial Education refer to the two departments. We may say that the common aim of technical and commercial education is to develop, through our influence on the rising generation, the productivity of the

country to the utmost limits consistent with social welfare—the first by improving and multiplying the things produced, the second by multiplying the markets which appropriate them when produced. Technical education is the means of making good handicraftsmen, and commercial education is the means of making good buyers and sellers. The late Professor Huxley, in the very last public address which he gave, said that it passed the wit of man to give a legal definition of technical education—but we have, I think, arrived at a distinction sufficient for our present purpose, although, perhaps, Professor Huxley was right in thinking it is not possible to frame definitions which will satisfy the lawyers. The army of merchants, travellers, buyers, sellers, accountants, actuaries, brokers, jobbers, are all fitted for their work by commercial education. So are bankers and financial agents of all kinds, for what are bankers but the sagacious distributors of capital where it can be profitably employed?

Grave and serious warnings have been recently given us that this aim of education, or form of education, needs to be improved. We have been urged to press the claims of commercial education by the reality of the struggle for existence. By the operation of natural laws, our population has increased until it is far in excess of that which we can feed. If we are to be saved from catastrophe by our inability to feed our people, it will be by our possession of a due share of the markets of the world. To secure this share we must be able to produce commodities which we can exchange with food-growing people. Our commodities must be better or cheaper than those offered by other nations. To this end technical knowledge and skill are in demand. But the commodities, when made, must be placed where they are needed, and so placed that they may bring a return. We must not send a cargo of skates to Rio Janeiro, or diamonds to Timbuctoo. That our skill, judgment, acuteness and sagacity in the placing of our commodities may improve, we must find more assistance from commercial education. Here is our stimulus.

I am for the moment limited to the consideration of this work as it can be done in Secondary Schools. What are Secondary Schools? I am glad I have not to define Secondary education; it is easier to classify institutions. We all know what are Primary Schools, or, as they are legally styled, Public Elementary Schools. These are schools under the Education Department, in which children may obtain, generally free of charge, the education prescribed by the Government code for those who, as a rule, begin labour at the age of 13 or 14. We all know also the institutions which constitute the head of our educational system, namely, the Universities, and the University Colleges. Between the Primary Schools and the University Colleges are a great variety of schools working with curricula designed for those who may continue their education to 16 or more—in some cases to 19 years of age. These are the Secondary Schools. They include the endowed schools—the present representatives of the old Grammar Schools, and the Schools, public or private, carrying education through the teens. In Greater London there are about 40 Boys' Schools and 30 Girls' Schools designed to give an education up to 16 or 17, and about ten or twelve of each kind carrying education up to 19, or the age for going to the Universities. All these are Secondary Schools. Now the question before us amounts to this: How can the education given in these schools be made to promote the prosperity of commerce? Probably others will have something to say on schools of other grades. My task is a limited one, but I must not for a moment be credited with a desire to maintain that the Primary Schools are outside the question before this conference. It is of the first importance that we should amend and improve our system of primary education until it becomes a proper preparation for the business of life in the cases of those who must of necessity enter on it at 13 or 14. We cannot shut out either the need for the acquiring of a certain amount of technical skill or of a certain amount of knowledge useful in commerce. We may make education of any grade too bookish, and too little practical. This is the case when it neglects the faculty of observation, and the faculty

of working accurately. But we must not carry this notion too far. The elementary schools may be charged with more than they can do. No good can come of burdening the elementary schools with special technical and commercial instruction. Hence the questions before us affect most the schools in which there are more years devoted to the work of learning, that is to say, the Secondary Schools.

Now in what way can Secondary Schools promote the expansion and success of commerce? The answer is simple, namely, by supplying qualified men and women. The qualifications are of three kinds: there are faculties such as intelligence, acuteness of reasoning and mental capacity generally; there are habits such as industry, regularity and punctuality in the performance of the duties that present themselves, the habit of facing difficulties until they are overcome, the power to which Lord Rosebery and others ascribe the achievements of the great statesman recently departed, namely, the power of concentration; and, thirdly, there are acquisitions of skill, as for instance, in the use of language, numbers and mechanical operations of writing in all its forms, long and short, simple and ornate.

Some, perhaps, may wish that we should confine our attention to the third head, but we must spend a minute or two on the first and second. They are all-important; they are the *sine qua non* of commercial success. What is the most important element in commercial education? Discipline, discipline, discipline: moral discipline, intellectual discipline. And why? Because character and intelligence are the first essentials. Better recruits for commerce must be our war-cry. The lame horses that will shy at every difficulty and jib at every intricate task or problem are not wanted in commerce. This, however, is the same thing as stating that the best boys of our secondary schools are the recruits wanted. The qualities which are the first essentials in commerce are exactly those which lift a boy to a good position in his school. That he rises to such a position is evidence that he possesses those faculties and those habits. "What is your position in your school?" should therefore be the first question put to every youthful candidate for a commercial appointment. As he has gone on in the years of his mental and moral plasticity, he will go on in his maturity. There may be miracles in these days involving sudden reformation and sudden conversions. So many tell us of the possibility of these miracles that we must believe in it. But the schoolmaster neither knows these miracles nor takes them into his calculations. Hence, if the mercantile world is to be stocked with our best material, our best students must be made to feel that their school record will be a help to them. They need such an encouragement and such a stimulus at present. The German or the French student has it to the full. His school record is sure to be asked for. It may, if it reaches a certain level of excellence, save him two years of compulsory military service. Many merchants, in advertising for recruits, state a preference for those who possess the certificate of exemption. So great must be this advantage, that one is almost inclined to feel that the evils of the compulsory service are outweighed by it, and to wish we had the system here in England. As that is not possible, let us try to get the advantage by some other means. Let us somehow or other prove to our schoolboys that what they are doing is worth doing well, and that their school record will help or hinder their entry into business according as it is good or bad. The Chamber of Commerce has already done a little in this direction. I hope yet, as I have hoped for years, to see an institution thriving under the common care of the Chamber of Commerce, the L.C.C., and the merchants of the City, which will bridge over the gap between school and business. In it special knowledge of business matters should be obtained by those directly about to pass the Rubicon bordering commerce, and by those who have passed and have begun to find what special acquisitions would be profitable to them. When a boy is once in harness he does not as a rule care to continue his studies on the old lines, but he will study what he sees he wants, and the methodical habits of study acquired by the successful scholar enable him to pursue the new aim with system and application. But I must not enlarge on this point, it being beyond my task; I only wish to add, that when we

get a good Commercial Institute, that will be the place in which may be learnt the schoolboy's record—transferred there from his school.

The third point remains, namely, the acquisition of special commercial knowledge and skill. This suggests an inquiry as to the effect of the demands of commerce on the curricula of the schools. It has to be remembered that in most cases we are unable to foresee what line of occupation any particular scholar will follow until he is about to leave us. But there are two points of importance to commercial education in secondary schools which are quite within our reach. The first affects our choice of subjects. It often happens that the same kind of training can be given by different subjects. For instance, able teachers of science can make any science or any common object in the world subservient to an introduction to the principles and greater truths of natural knowledge. Dean Swift could write an admirable poem on a broomstick; Faraday could give a fascinating and most instructive series of lectures on a candle. Now, when two or more subjects will serve the same purpose in education up to the point to which education can be carried in the particular case under consideration, that one must be selected which will be of most use in the business of life. These rules should guide us in the choice of sciences, languages, arithmetical processes, and in subjects for the exercise of the reasoning powers. The faculties to which I have referred vary with the field in which they are exercised. An artist will see things in a picture which a chemist cannot see, and a chemist will detect a reaction which an artist would not notice. Hence, evidently, when we know the kind of field in which the faculties are intended to be the knowledge will influence the choice of subjects. Every boy looking forward to enter business at 16 should be sufficiently familiar with the broad principles which underlie industrial operations to be able to adapt himself to new conditions. Such qualifications can only be secured by a scientific instruction which occupies a midway place between those primary notions given in elementary schools and those more advanced studies of the technical institutes and university colleges. Exercises, primarily intended to teach the use of language, thought and reasoning, may be combined with a lesson in important principles of trade. A discussion of such a subject as the following would serve this double purpose:—"The commercial calamities which have from time to time been produced by the ignorance and recklessness of individuals in using the credit offered them, and by the lack of vigilance and sagacity in those who give credit." And there is something a little more definite that may be done. In London and the larger provincial towns where there are a number of secondary schools, some may well be encouraged to take up a more strictly commercial curriculum than would be good for the whole. This really is done to a small extent even now. If you take a map of London for each school, and mark on it the positions of the residences of the scholars in that school, and then compare the maps, you will find that the schools do not simply serve a local purpose. Several draw their scholars from the same areas. What determines the parents' choice? Not simply difference of fee, for railway fares are voluntarily added to the cost where they might be avoided. It is that some difference of methods and of curricula distinguish the schools, making one more suitable for preparation for one kind of pursuit and its neighbour better for another. We should take advantage of this and recognize a certain number of schools distributed over the London area, as St. Paul's, for instance, as suited for those aiming at the professions, and others as better suited for those preparing for commerce. It may be said in answer to this suggestion, that in the larger schools there may be a subdivision into departments: classical and modern, or professional and commercial. The danger in such cases is, however, that one department will be considered lower or less honourable than the other, and will, therefore, fail to attract the most able scholars. This difficulty does not appear to the same extent when the departments are in entirely different schools.

I have now in conclusion briefly to sketch the curriculum of such a special commercial school. In addition to the usual school subjects there should be—

1. Arithmetic, including exchanges and currencies, and mathematics.
2. English composition and correspondence, with practice in condensing, expanding and paraphrasing.
3. Commercial geography and history.
4. The study of animal, vegetable and mineral products.
5. Laboratory practice.
6. Modern languages.
7. A study of British industries and commerce.
8. Business methods of conducting operations connected with import and export trade.

DISCUSSION.

Mr. A. A. Somerville (Eton College): Mr. Chairman, Ladies and Gentlemen, as representing the largest of our secondary schools, and having to do with a great deal of the modern language teaching at that school, perhaps I may be allowed to offer a remark or two. The note struck by Sir John Gorst, and continued by Mr. Bourne, gave me very great satisfaction, and that was the plea for thoroughness. It seems to me, judging by experience, that what is wanted in all the schools of our country is more thoroughness, and particularly I would ask that our own language should be taught more thoroughly. I would ask that the value of words and the construction of sentences in our own language should be more appreciated. Mr. Bourne suggested that the teaching of French and German meets with many obstacles, mainly because of the differences of method, and he mentioned the Modern Language Association as a possible means by which differences of method might be reconciled. As a member of the Modern Language Association, I may say that this question has been most carefully considered by the Association, and although we have not yet been able to agree upon a general method, we have agreed upon general principles. Mr. Bourne thinks modern language should be taught mainly by the ear. I agree with him, but I would also ask him not to banish teaching by the eye. I think the true solution of the difficulty would be to teach modern languages by a combination of methods founded on teaching through the ear and through the eye. Let me conclude by saying, as I began, that what we require is thoroughness, and that thoroughness will conduce to what Dr. Wormell has pleaded for, viz., the development of character and improvement of discipline. (Cheers.)

Mr. H. W. Eve, M.A. (College of Preceptors): Mr. Chairman, Ladies and Gentlemen, I have only two remarks to make, and the first is one which I hardly expected to have to make after having for more than 35 years worked hard to push modern education. I am just afraid that the pendulum might swing a little too far the other way, and that there is a real danger that the education of men destined for business should be a little divorced from the general education of the country. I do most earnestly support the increased study and the thorough study of French and German, but I do not want to see boys going to business solely from those studies. After all, it is better, even for business purposes, to know Latin and Greek like a scholar than to know French or German like a courier or a bagman. (Cheers.) Therefore, with all my enthusiasm for modern language teaching, I should be very sorry to think that it was to be henceforth the only avenue to posts in houses of business. The other point is one that I previously had an opportunity of dwelling upon, a point to which Mr. Bourne alluded at the end of his speech. Mr. Bourne told us that some people said "The boy is too well educated for our purpose." Is there or is there not an effective demand for really well educated lads in houses of business? (Hear, hear.) It seems to be very generally felt that what business men are too much on the look-out for are mere fags. Of course there must be a great number of such, but I think the heads of firms would be wise, if it is not very impertinent to say so, also to look out for what I may call recruits for their own profession as well as for mere assistants. (Hear, hear.) The highest kind of business in the country, I suppose, is that conducted by the Treasury. The Treasury is recruited from the pick of the universities. I do think that the best houses of business might in the same way recruit themselves from the pick of the public schools and universities, if they would offer positions enabling boys to be trained for the higher walks of commerce. (Hear, hear.) Those intended for the higher posts ought not, as a rule, to begin at the bottom, where a lad from a board school naturally comes in; they ought to be put in the way of being familiarized with the real working of a business. I cannot help thinking that something of the system that has made public offices and the army what they are might be applied to business, that such posts as a man would give to his own son or his own nephew, should be given, by competition, to lads from ages of perhaps 18 to 22. By that means I believe you would get well-trained men who could adapt themselves to anything, and the power of adaptation, which is one of the results of a good education, is a thing most desirable to secure in commerce. I would, therefore, strongly urge that some collective effort should be made not merely to give inferior posts to those who distinguish themselves at the Chamber of Commerce or other examinations, but that really first-rate opportunities should be offered to deserving young men without family connection. The best men of business send their

sons, whom they intend to follow them, to public schools and universities, and generally they are wise enough to make them work hard there. Why should not they recruit the ranks of well-educated men of business from other sources? (Cheers).

Mr. Robert Leighton Leighton, M.A. (Headmaster Bristol Grammar School): Mr. Chairman, Ladies and Gentlemen, I echo every word Mr. Eve has said, but I should like to put before the meeting what I conceive to be the fundamental difficulty of raising the standard of commercial education at present. Suppose that we get these institutions for training the embryo captain of industry or merchant prince—how is that boy or youth going to earn his bread for the first fifteen years of his career? If he is all that these institutions try to make him, no firm wants him in a junior position. (Hear, hear.) No firm will have him in a junior position, and unless he has a father to succeed, there is no room for that boy in business. When he got to be 35 or 40, if he had been in business, then there would be competition for his services, but he has been driven away into other lines of life before he attains that age. If, inadvertently, some firm gives a boy of that kind a position, he is exposed to very great dangers. I am not talking of imaginary cases, but I have real cases in my mind. He will excite the jealousy of his immediate superiors, and they will lay information against him, and they will watch for him and set traps for him, and, if they can, they will destroy him. Justice and generosity are not principles of business (Laughter and "Oh, oh"), and if anything is alleged against this boy of some promise, he must not expect that the heads of the business will really take the trouble to enquire into the truth of the allegations. The boys whom we are proposing to train in this way under the present conditions of business will really be in a worse position than if we left them alone. ("No, no.") Yes, the firms will not take them, except a few of the great banks. ("Oh, oh.") An ordinary firm will not take a boy of that kind. Within the last two months I had a boy of exactly the kind I am describing. He was a boy of brilliant parts. Unfortunately, the parents were poor, but if his parents could have helped him a little he would infallibly have got a first-rate mathematical scholarship. He was also well on in chemistry and physics. It was necessary that he should find work, and I had to hawk him round Bristol to firm after firm. "No, we do not want him." Another firm says, "He is too good for us, we will not have him." And at last I got a literary employer, to take him, very largely as a favour to myself. Having got him, he is very pleased with him naturally, and finds he can do all his work, but if this boy had been left to himself, as far as I can observe, he would not have had a chance of getting employment of any kind. That is what one finds habitually. The firms will not have these people, and when they get them they have no protection against the jealousy and ill-will they are perfectly certain to excite. ("No, no.") Therefore, I ask, how are these boys going to earn their livings in the first ten or twenty years of commercial life? (Cheers.)

Mr. Alderman Brigg, M.P. (Keighley): Mr. Chairman, Ladies and Gentlemen, I venture, with some diffidence, to make a remark on the subject which is now before the Conference, for I feel that I am called upon from a different standpoint from those who have spoken so far. Hitherto, we have had what I may call a theoretical view of the subject. I venture to speak from the practical point of view (Hear, hear), having taken part very actively in the formation of a series of classes for the purpose of carrying out this very commercial instruction which we are now seeking to bring before the public more largely. Well, the position in which we stand at present is this, I may perhaps be allowed to say, representing the West Riding of Yorkshire, that we are surrounded by a large working population to whom this question of commercial education is one of pressing importance, and one that is brought home to our very doors, and has been for some time past, by the needs of those whom we are seeking to educate. On this point may I just venture for one moment, Mr. Chairman, to digress on what I may call, strictly speaking, a more political question, and that is, that while we regret, as has been expressed by gentlemen who have spoken already, that much of the work we are now seeking to accomplish is done by foreigners better educated than our own young men, yet at the same time, when we come to enquire why our young men have not done better than they have, and why—a fact which applies to very many other things besides teaching—why we do not do everything Mr. Foreigner does, and better than he does, we find

that it is simply this, that we are doing better work ourselves, and getting better paid for what we do. We cannot bear to do the work they do because they do it at a cheap rate, and we are doing something which is very much better. (Hear, hear.) Consequently, I venture to think, with the hon. gentleman on my left, Sir John Gorst, that I take rather an optimistic view of this question. At the same time there is no reason why we should fall behind in the competition which we feel is coming in upon us from all sides. The position we have now taken in reference to education, which is under our control at the present moment, is simply to take care that we have a good sound basis of primary education all round. In the next case we have to deal with the same students when they come into the higher grade Board Schools, which, as a County Council, we do not venture to put beyond the range of our influence. Then we follow on with the work that is carried on in continuation schools, that is, in night schools where the students, in very many cases, are engaged in practical work during the day. In those schools—that is, in the higher grade Board Schools, and in the continuation schools —there is a certain amount of distinctly commercial teaching inculcated. Then we follow with the higher branch of the same studies which we carry on in the secondary schools, the technical institutes which we have in the district. That brings me now to what I have simply to say here, the main thing I have to say, and that is, that we are still wanting, and must have somewhere, a higher commercial college where we can send our successful boys. That is, as far as I can understand it, the problem before us. It is the great want of our commercial education in England of to-day. We have not got those schools or colleges or universities to which we can send our boys, and, consequently, at the present moment we are bound to deal with them and finish their education when they come to ages of something like 16 or 17. What I would hope would be the result of this Conference, and which I believe, to some extent, is the object of those who have promoted it, is, that this Conference should be of assistance to the formation of the higher Institute for Commercial Education; and London, of course, as the centre of the commercial life of this country, is the place where there should be, in the first instance, a college of the very first class in the world. Beyond that, it may be possible that districts in the country may institute something of the same kind. But I would commend to those who take an interest in education, that what we are most in need of is the higher branch, a more extended branch of commercial education. If we have that, we shall very soon find that the lower classification of students with whom we have to deal will gradually fall into line and work up to the centre, which, I think, it is the aim and object of this Conference to promote. I beg to suggest that as my contribution to the Conference. (Cheers.)

Rev. W. Moore Ede (Newcastle-on-Tyne Royal Grammar School): Mr. Chairman, Ladies and Gentlemen, perhaps I may be allowed to speak on this subject from a rather different point of view from that of the previous speakers. I am here as the representative of the governing body of Newcastle Grammar School, but I also am, and have been for many years, in the position of chairman of one of the large School Boards of this country. I feel that this question really resolves itself into the provision of education for two classes of persons: the sons of business men whose business has already been created, and the training, therefore, of those who will be the future captains of industry. That is the work that will have to be done in such institutions as that which I represent, the Grammar Schools, and also in higher commercial institutions yet to be created. But also commercial education must make provision for that very large class of persons who go into commerce from the elementary schools. (Hear, hear.) It is from the elementary schools that the great majority of the clerks of this country come, therefore commercial education cannot neglect the preparation of the great mass of the clerks of the country, and the providing them with adequate preliminary training. Sir John Gorst has referred to the wisdom of such a Conference as this considering the obstacles that are in the way of improving education in commercial lines. I would like to refer to two obstacles. I speak as a north countryman, and in the north country the higher grade schools are a very large factor in education (Hear, hear), much larger than they are in the south. The very large proportion of the best clerks are boys who have passed through the higher grade schools. We have heard from our Chairman that one great deficiency of the English clerk is his want of knowledge of foreign languages. I venture to think that there is an obstacle in the way which can be

removed by persons in authority, which causes the training of those who are going into business to be defective on the language side. I refer to the regulations of the Science and Art Department which govern those higher grade schools, and compel an undue proportion of time to be given to science and an insufficient portion of time to be given to languages. (Cheers.) I think, sir, that these higher grade schools, which are such a very important factor—if I took Northumberland and Durham I think I may say that there are something like six times as many children in those schools receiving a certain degree—I will admit not a very advanced degree—but a certain degree of secondary education—there are six times as many children in those schools as there are in all the other kinds of secondary schools in the north of England. Then it is very important that these schools should be able to divide their curriculum, that they should be able to say to boys when they have got through their standards and passed Standard VII.: "We now offer you an alternative. If you are going into commercial life, you may take the commercial side of the school. If you are going into mechanical life or into factories, you may take the science side of the school." But as all the financial encouragement is given to the science side and very little encouragement given to the language side, necessity compels the construction of the curricula of those schools in such a fashion that too much time is given to science and too little is given to languages. (Cheers.) And then, sir, I do feel that another obstacle that has to be removed is that lack of encouragement that Mr. Eve and the speaker who preceded him has alluded to, with regard to those who are to occupy important posts in the business work of the country afterwards. But there is also a great want of encouragement on the part of men in business of those who are the best trained in the elementary schools of the country. As long as the first step in commercial life is to begin as office boy with 5*s*. or 6*s*. a week, there is not much inducement for boys at school to qualify themselves much for commercial life. (Cheers.) The more those who are connected with commerce realize the importance of teaching, and value and encourage those who have done well in school, and give better posts at starting in their office, the more we shall get boys striving to qualify themselves before they enter on their commercial career. Those two obstacles, the Science and Art regulations and the want of encouragement to those who begin their commercial career, are two obstacles which I hope before long we shall see removed. (Cheers.)

Mr. Albert Spicer, M.P. (Newport Chamber of Commerce): Mr. Chairman, Ladies and Gentlemen, I think this Conference is very much indebted to Mr. Eve for raising the question that he has done in connection with the small inducement held out by commercial firms in the employment of well-educated young men. (Hear, hear.) At the same time, I think the friend from Bristol who spoke on the same subject was a little unfair to a large number of commercial firms who do maintain principles of justice as well as of generosity. (Hear, hear.) But, sir, there are a great many more difficulties surrounding this question than I think those who look at it purely from the professional educational side are apt to allow for. You must recollect first of all there are, after all, only a section of the present heads of firms, whether manufacturing or distributing, who are well educated themselves, and who therefore appreciate the advantages of well-educated assistants. Then, again, you have to realize that there is a great distinction between business of any kind and Government employment. In every business there is an amount of drudgery that everyone has to learn, and everyone has to give his attention to (Hear, hear), and drudgery which, in the present day of keen competition, as we have been reminded, having to compete with every part of the world, heads of firms can only afford to pay a certain price for; and I cannot help thinking, that if those who are interested in this question, like our friend Mr. Eve and others, would be a little more patient, and, if I may say so, from a business point of view, a little more discreet, it would be better. What they want to find, first of all, is what business their protégé will throw his whole heart into; then look out for a firm where he can exercise the abilities which he possesses. Do not trouble yourself at the outset, at any rate for the first year or two, as to the mere question of salary. (Hear, hear.) It is perfectly true he might have to accept less than he could get if he went into a Government employment, or some class of professional employment, but I maintain that directly he has learned his business he can command his own price. (Hear, hear.) He must learn his business first, and

while he is learning it he is not sometimes worth very much more than a School Board boy. I speak with some experience in the matter, because in the firm with which I am connected we try to train our own staff. We take them as boys, sometimes from secondary schools, sometimes from Board Schools, and our experience is that for the first two to three years the School Board boy knows better his own subjects in a limited sphere than the boy with a better general education. But there is this difference. With the School Board boy, unless he is an industrious boy and is willing to give some time in the evening to study, with his home surroundings, his education practically stops when he leaves school. The boy who has come from the secondary school does not know exactly as much sometimes, or as well as the Board School boy, but he is living in the midst of educational advantages, and if he is a reading boy he is constantly going forward, and even if he is not a reading boy—and you must bear in mind what we have already heard this morning—there is a tremendous tendency in these boys who have been brought up in our better families to think sometimes that they need not really work; but, whatever his ideas may be in this way, his education is always going on. And what do we find? For the first three years the Board School boy is being sought after by the heads of the different departments, and the boy from the secondary school is left alone. But the heads of departments in any large firm are constantly looking out for those who do their work best, and this boy gets a change. He now gets to a position where he has to think a little for himself, and then at once the boy from the secondary school, in the bulk of cases, begins to forge ahead. A Board School boy, in too many cases, if you put the extra responsibility on him, fails. He has done splendidly when he is told what he should do, but when he comes to real responsibility he stops, and then you ask how it is you misjudged that boy so much. The other boy goes on. From that moment he has his chance before him, and I maintain that we should not have occupied the commercial position we do if the heads of firms were not constantly looking after the boys who were likely to come on and do the best work. I quite admit that point which was raised as to the jealousy, in some cases, of the other employees of a firm, but the heads of a growing and progressive concern are always looking for those who are likely to occupy high positions, and from that moment, although the salary may have been very small for the first three or four years, directly that boy knows his business, as I say, he can command his price. And then, bear in mind, there are prospects opening to him either in the firm or any other firm which are far greater than those of the great mass of Government employments. (Hear, hear.) Therefore I do think the heads of our great schools should look at this matter a little more all round. I admit fully that there has been a disinclination on the part of many to give these extra salaries to begin with, but, as a matter of fact, the reason is, that for the first two or three years they are not worth it. They may be anxious to try and encourage, and may pay extra in some cases, and gradually as they find by experience that they grow into important positions, I do not think they will be found lacking. (Cheers.)

Sir Philip Magnus (City and Guilds of London Institute): Mr. Chairman, Ladies and Gentlemen, I only want to be allowed to say one word on this question of the education to be given in our secondary schools. I am anxious that the discussion should not divert too far from the subjects brought under our consideration by Mr. Bourne in his opening paper. Mr. Bourne laid down very clearly what, in his opinion, should be the curriculum of a school preparing boys for a commercial life, and I was very anxious that that curriculum should be carefully discussed by the members of the Conference present here to-day. Mr. Eve raised a dissentient voice to the views put forward by Mr. Bourne; and one of the main questions for consideration in the curriculum of such a school is the amount of time that can be devoted to the special subjects of instruction. I think it is admitted that without attempting to specialize in a commercial school, boys who are educated in such an institution should have ample time for the study of modern languages. (Hear, hear.) That point was raised by a speaker who stated that the encouragement of science in the higher grade schools prevented a sufficient amount of time being given to modern languages. But I venture to think that the question raised by Mr. Eve is more important, and that is, whether it is possible to give instruction in the classical languages in a school devoted to commercial purposes, and, at the

same time, to give sufficient opportunity for the proper study of modern languages.

Mr. H. W. Eve: May I say that was not my point. My point was, that boys taken for commerce should be specially trained in modern languages—not to bring the classics into a purely commercial school.

Sir Philip Magnus: I accept Mr. Eve's correction; but what I want the Conference to consider is, whether it is desirable or not that in the secondary schools preparing for a commercial life the classical languages should continue to hold a place; and with reference to this question I would point out for one moment what is being done in some of those foreign schools to which reference has already been made. It is, undoubtedly, true that the boy who has been educated in a commercial school abroad has a wider, a more skilful, and a more intelligent knowledge of foreign languages than most boys obtain in corresponding schools in this country. (Hear, hear.) We very often hear of the so-called Handelschulen in Germany. When we look into the curriculum of one of those schools, we very often expect to find a large amount of specialized commercial instruction; but, as a fact, one finds none, or next to none. Those schools, however, do succeed in giving to the boys who are trained for commerce a thoroughly intelligent knowledge of the French and English languages; and nothing surprises a foreigner more than to go into one of those schools, and, at the invitation of the master, to be asked to speak to the boys either in English or in French. One finds that the shyness which is so generally characteristic of our own boys does not exist; that they are able intelligently to answer you in the language in which you address them. (Hear, hear.) Now, I venture to think this is a serious question for consideration. Some time ago Sir William Harcourt referred at great length to what he called the Realschulen in Germany, comparing them, somewhat unexpectedly, with the elementary schools in this country. But at the Realschulen in Germany, as in the specific Handelschulen, an education is given of a thoroughly general and disciplinary character, but Latin and Greek are not taught. The same discipline which we succeed in obtaining from those classical studies is obtained in the teaching of foreign languages. (Cheers.) I venture to think that, without modifying our curriculum to any very great extent, we shall be able whenever the organization of our secondary education comes to be effected, to find room in this country for schools corresponding to some extent to the Handelschulen and Realschulen of Germany, schools in which modern languages form the staple of the linguistic instruction, and in which the instruction is so given as to constitute a thoroughly intellectual discipline.

Mr. J. H. Yoxall, M.P.: Mr. Chairman, Ladies and Gentlemen, I think in all comparisons between our English schools and the Continental schools we must be careful not to forget one great handicap upon English teachers and English schools as compared with those abroad. Of the elementary school-child's life of seven or eight years I am quite sure that two years are occupied in the teaching, practising, rehearsing and testing of our cumbrous, antiquated and unnecessary system of money, weights and measures. (Cheers.) You will never obtain for English scholars in English schools a satisfactory amount of teaching of modern languages so long as you conserve for the English scholar in the English school an arithmetical exercise which occupies something like 25 per cent. of his time. I believe that merchants and men of business complain that the lads who come to them, whether from elementary schools or secondary schools, pursue long, roundabout, and cumbrous methods of calculation, have not gained the knack of quick calculation, and have no idea of those briefer methods which business men, by their own initiative and discovery, have found out. That is very largely due to the fact that the teachers of the child are compelled, by our systems, to go through a wearisome mill-horse round, in the utmost detail, by the most cumbrous methods, because they are the most logical and most easily explained to the child. If you want modern languages to be taught in elementary schools or secondary schools more than they have been taught, you must clear away from the path of the schoolboy here an obstacle which does not lie in the path of the schoolboy abroad. But I did not mean to speak on that point. We have been talking about the curriculum in secondary schools, and the difficulties of obtaining for the highly educated lad from the comfortable middle-class home at 17 or 19, a beginning in the world of commerce, that seems worth his while to take. I do not think that you ought to consider very

much the highly educated son of the wealthy middle-class home in this matter of commerce. Surely the one constant and heroic figure in the world of business has been the self-made man. (Hear, hear.) He is historical in the City of London,—"Thrice Lord Mayor of London," the typical figure in the history of business. He was in the old days the good apprentice who married his master's daughter (laughter), and inherited his master's business. (Laughter and cheers.) But in these days Mr. Bourne has pointed out how the middle-class boy comes from home with ideas hardly those which are likely to make him succeed in business. If his father be wealthy enough he places him in a profession, or leaves him in a position independent of the world of commerce. So long as commerce is built upon ideas of supply and demand, the cheapest market and the dearest market and so on, so long as there it is not an organized system for placing people in the posts they are best suited to, so long in the rough-and-tumble of commerce you must rely on the poor clever lads for commercial captains, and corporals and privates, more than upon the product of the secondary school or the tertiary school, who comes from a luxurious home with ideas which make him, perhaps, not quite the best suited to fight his way in the world of commerce, and so long must your chief care be so to organize your secondary education that you shall obtain in your secondary schools a constant supply of the cleverest poor lads from the elementary schools (cheers), and that to them you shall supply, in the secondary schools, a specially arranged commercial curriculum, and so have at the end of the secondary school course a sufficient number of lads, well educated, but not too rich and not too proud to take the poorly paid posts in your houses of business, and work their way up to the top. (Cheers.)

Rev. Prebendary Whittington (City of London College): Mr. Chairman and Gentlemen, I rise to speak in the somewhat unique position of having been fifty years engaged in education, thirty-five years in public schools, and for twenty-eight years in one of the great schools of this great city. I know, therefore, what the work of the secondary school is, and I know what the defects are. I know also what we have tried to do in the City of London College in the way of supplementing that defective education which is found—necessarily so—among the very large numbers of those educated in our public schools who have to leave early. I can remember the time when modern languages were looked upon as a mere thing to laugh at in our public schools. We are very thankful now that we have our modern sides in which modern languages and science are taught well in those schools. But yet not sufficiently I must say. (Hear, hear.) My own experience with regard to modern languages is that to equip boys leaving those schools—and I have to deal with them often very early—to go forth and succeed in commercial life, modern languages must be taught more efficiently. I have the examination of a very large number of bank clerks, especially from two of the largest banks with branches all over the United Kingdom, and I am distressed to see how boys who have come from our secondary schools are utterly deficient in modern languages and other branches of commercial education. It is true that they are not to be taken as good examples of those schools, because we know that in many of them the most talented do not come up at that early age, namely, at fourteen or sixteen, but such are the exigencies of commercial life, and such the needs of the parents of many of these boys, that they are obliged to be withdrawn from the school and sent to evening classes in our City of London College or other kindred institutions to supply the deficiencies of their education in those secondary schools. And what do I find? I won't be utopian enough to imagine that very many of the two thousand young men and young women in our college come to us at these very early ages to get learning *per se*. I am glad to think there is a certain *percentage* who do do that, but the majority of those come to get equipped to enter into commercial life, and they feel the absolute necessity of being taught subjects such as will qualify them for commerce or business life. I do not blame those public schools, because when they leave so early as that we cannot expect they can give anything like a commercial education up to the age of fifteen. It is necessary I think that the lads should go, as contemplated in the idea of this Conference, to some commercial school such as we wish to establish, which shall qualify them to enter into the particular walks of commerce to which they are looking forward. Mr. Bourne did commence his paper by saying he thought it was highly desirable that there should be a general education up to a certain point, and I do venture

to hope, in spite of what the last speaker said, that we may have a general education given to everyone, which shall include a certain amount of classical language, in addition to modern languages. I venture to hope also that we shall be able to keep up that general education, and then to implant upon it that other particular education which shall qualify for commerce. I think our modern departments meet a good deal of that difficulty. I know that much sound grounding is given in the modern departments of our public schools and elementary schools—although I am dealing with secondary schools—naturally elementary schools are very important, but that is not the subject now before us. It is the secondary schools, and the importance of modern education in those secondary schools we have to discuss to-day. Well, I must say, I think from my own knowledge that the way in which languages are taught in those secondary schools is not such as to qualify lads to enter into houses of commerce, or be of great service in after life. (Hear, hear.) I do not undervalue that modern education which is given in those schools, because I think in many of those schools they give a very good grounding in modern languages (Hear, hear); but they do not deal, of course, very largely with commercial modern language education, which is a thing of itself, *sui generis* (Hear, hear), and which certainly requires a great deal of attention if a man is to enter a commercial house with a special qualification in modern languages. Again, with regard to the question of geography, I was rather sorry to hear Mr. Bourne say he thought geography was a subject which might be carried on at home and almost independently of the teaching of the school. My own experience is this, that the geography of the young men who present themselves for commercial positions is lamentably deficient, and it is certainly not that geography which would be of service in the commercial world, or which would qualify them to be of great service in a commercial house. I will not dwell longer on this point. It is said the commercial houses will not accept these young men. I am bound to say that I think hitherto the commercial houses have not had the opportunity of having any reliable certificates that these men possess that knowledge which will be of great value to their employers. (Hear, hear.) I am bound to say with reference to the students in my own college that those who do get a good education, and qualify themselves as much as they possibly can, generally do find good positions, and that education is recognised, when it is really a sound and valuable education, by our great commercial firms. I think it is only justice to our commercial firms that I should say that. (Cheers.) If we have a commercial college for higher commercial education, then I think we shall find there will be no difficulty in our great commercial firms, when a man gets his certificate from these higher commercial colleges, in being able to find positions for such young men. (Cheers.)

Mr. J. Easterbrook, M.A. (Headmaster, Owen's School, Islington): Mr. Chairman, Ladies and Gentlemen, so many professional representatives have spoken that we cannot after this be accused of being apathetic in this matter. I think I can safely say for those representing secondary education that we are most anxious to know where business men consider secondary education fails. (Hear, hear.) We wish to apply the remedy to the defects if we can, but we have not found, as a rule, that business men have been agreed upon the matter. However, they appear to be pretty well agreed to-day on one point, viz., that secondary education should be more thorough. Well, I am afraid there may be a certain amount of truth in that, but I do not think they know the difficulties under which we labour in the ordinary secondary schools. By the ordinary secondary schools I mean those which are not the richest in the country. I mean especially the country grammar schools; and although I am not headmaster of a country grammar school myself, still I know their difficulties. We very often have the example of Germany put before us, but I should like to call the attention of business men to the fact that the conditions in Germany are quite different. (Hear, hear.) Secondary education is properly organised there, it is encouraged in every way, and the schools are properly equipped and fully staffed. Now in England we know that this is not the case. For thirty years it has been the practice to give public funds to one side of education only. (Hear, hear.) That has been touched on already by a speaker near me with regard to elementary schools; but the same thing applies in a more acute form to secondary schools. The great bulk of the secondary schools in the country are in want of funds, and

since Government grants are only given to encourage certain subjects, they are obliged to lay stress on those subjects, and to give time to them. I think the time has now come to organise secondary education, and throw State grants open. (Hear, hear.) With regard to the curriculum, I quite agree myself with what Mr. Bourne has said, and I also agree with Mr. Eve. I believe there is room for the classical schools, and there should be room in business houses for boys from those schools if they will only pay sufficient attention to handwriting, commercial arithmetic, and modern languages. (Hear, hear.) My experience of boys who have been trained on a distinctly classical side, is that they generally write execrably. (Hear, hear.) With regard to commercial arithmetic I had been going to mention that we should very much like to see the metric system become general. (Cheers.) That would leave us a great deal more time for our modern languages in the lower form. Then we also hope that business men will take up this idea of the Higher Commercial College. The establishment of such a college would give a dignity to commercial education if the institution is of University rank, and attracts to its lecture rooms young men of from 17 to 20, and it will react on our schools because we shall have to prepare boys for the entrance examination to that college, which I hope will be stiff. By that means it will have a good effect upon the commercial education of secondary schools. There should also, I think, be a proper system of leaving certificates. If they were properly arranged by a central body, which we all hope will come into existence for secondary education, I think it would do a great deal of good, and business men would get into the way of recognising those certificates. There is another point. I have experience of boys who come from homes of limited means, and it is often very important when they go out into life they should begin earning money at once. (Hear, hear.) Well, if business men require superior clerks they must offer sufficient inducements. At present the majority of boys leaving school, and not blessed with rich parents, find the immediate emoluments offered by the Civil Service, even in its lower divisions, appeal to them more strongly than the emoluments offered in the majority of commercial houses. (Cheers.)

Mr. Frank Debenham (Deputy-Chairman of the Commercial Education Committee, London Chamber of Commerce): Sir Albert Rollit, Ladies and Gentlemen, I had not the slightest intention of joining in this discussion, although its subject has been to me one of supreme interest, for many years, in connection with our London Chamber of Commerce. I would, however, like to say how thoroughly I endorse the remarks made by Mr. Albert Spicer. Some may think that Mr. Spicer looked at this subject of commercial education too exclusively from the point of view of the man of business; but surely it is important, if any progress is to be made, that we should all consider it as business men. Perhaps we have hitherto looked at it rather too much from the schoolmaster's point of view. All business men who take lads and educate them for business know how deplorable are the conditions of our secondary education. It has been suggested that to-day the Board School boy is better educated for business, and far more apt in consequence at learning his business, than the boy who has been educated at an average secondary school. I believe that this is so. We ought, I think, to combine the experience of business men with that of those who educate our youth in such a way as to lead to improvement in our secondary education. I agree with all Mr. Eve said about the importance of not doing anything to divorce commercial education from general education and even the higher culture. It is very difficult for a young man, say of 18 or 19, desirous of going into business—perhaps a business only waiting for him to go into—to know how best to qualify. He certainly cannot do it without beginning somewhere near the bottom. He may have reached the sixth form in a public school and yet, for one reason or another, not be desirous of going on to the university. How is he to enter upon his business career? I cannot but think, more especially after attending the recent Antwerp conference, that there must, more particularly in London, be a distinct need for a higher commercial school or college which, as has been said, will do something to bridge the educational gap. Why should we be afraid to try experiments? Our practical way in this country is to follow the law of induction and experiment, and if our London County Council can adopt one scheme, and our Chamber of Commerce assist in the promotion of another, let us hope the merchants and wealthy traders of this great metropolis will come forward with their usual generosity and supply the funds.

We shall all rejoice if this Conference induce such a happy result.

Mr. David Howard, J.P. (Ex-officio Vice-President of the London Chamber of Commerce (Incorporated) and a Governor of Chigwell School, Chigwell): Mr. Chairman, Ladies and Gentlemen, a great deal of what I might have said has been said much better for me, and therefore I need not take up your time by repeating it. I venture to say a few words from a somewhat extended experience of foreign rivals and friends, and their methods of work. I do want to emphasize what has been said about the dangers of self-indulgent, idle, luxurious boys, going into business. Our foreign rivals are tremendously in earnest, and work tremendously hard, and make their commercial life or their manufacturing life the first object of their life—it may be too much so. So do not let boys imagine, and do not let us send boys to be taught to imagine, that commercial life is a nice, easy, idle sort of thing. (Hear, hear.) Cycling, cricket, football, golf are all very well in their way, but directly they become the primary object of life there is an end of the commercial life. (Hear, hear.) Another thing I have found with my foreign friends is that, as a rule, the leaders have been thoroughly well educated. They are members of good universities; they are thoroughly grounded, and that is another thing I do want to emphasize most emphatically. There is no royal road to commercial knowledge. (Hear, hear.) You must begin with the foundation, and just as if you are building you always make your foundation fit in with what you are going to put on the top of it; if it is a 6-ft. wall you do not put as much concrete in as for a building 100-ft. high, just so it is madness to suppose you can put in the same foundation for a boy who is going to leave school at fourteen, and a boy who is going to keep on his education until he is nineteen. (Hear, hear.) The more thorough the foundation you put into those who are to be leaders the better, and I do not think it is wasted. I am one of those benighted persons who learnt grammar from the old Eton grammar, and I even went so far as to waste my time over learning Greek, and I find men who have been taught modern languages in the modern way, when it comes to the interpretation of an important German document—and may I say that some of them are quite as difficult to interpret as an obscure Greek chorus—somehow or other it is those who know several languages, and who know something more than "reise plander," who know how to translate thoroughly and well. I constantly find that I and others who have learnt a good deal more than the mere modern language, are called upon to make sense of foreign correspondence. A mere colloquial knowledge of French and German is worth precious little. What do we really want?—thoroughness and accuracy of thought. (Hear, hear.) I do not think it is a pity even to spend time over our very complex system of weights and measures, if in doing so you learn vulgar fractions. (Laughter.) We want thoroughness. (Hear, hear.) It is little use teaching a boy too much book-keeping, he probably thinks the system he has learned is the only one, and he will tell you yours is wrong. (Laughter.) Employers cannot stand conceit, and that is why they are shy of taking the clever boys. We want a boy who will learn, and who will begin at the beginning. I should be ashamed to ask a clerk in my office or a workman in my factory to do a thing I could not do myself. Thoroughness, thoroughness, thoroughness is what we want. Let us beware of shutting our eyes above all to the fact that it is the tremendous earnestness of the foreigner that we have to guard against more than anything else. (Cheers.)

Mr. George Brown (Vice-President Private Schools Association): Mr. Chairman and Gentlemen, we have been told that the fundamental principle underlying this question is the need for the best equipment of the rising generation. Well, I think we all admit that. There is an assumption that England is falling behind in the commercial race. I think that is an assumption only. But the result of that assumption is, that almost a panic seems to have taken possession of the commercial people of this country, which leads them to lay the entire blame upon our schools. I do not wish to stand up here to defend entirely the secondary schools of this country. But I do think there are other facts entering into this question besides the school question. (Hear, hear.) The commercial supremacy of a nation does not depend entirely upon the education you give the rising generation. Thousands of the great merchants of this country will admit that they themselves had not a liberal education to begin with. But all the same they have raised

their country, notwithstanding their deficient secondary education, to the proud position of the first commercial nation of the world. (Cheers.) I think that is a proof that if we are falling behind it is not due to our lack of education. There seems to be a desire on the part of many to nationalize the brains of the rising generation by the introduction of a State system which will drive them into one groove. Now, you have a desire to commercialize the brains of the rising generation by making lop-sided individuals. I say if you commercialize their brains in that way, you may depend upon it the commercial supremacy of this country will decline. It is the function of the school, surely, to develop the talents, to widen the intellect, and if there must be specialization for commercial life, let it be for those who are to enter into commercial life, and let it come at that period of school life when the faculties have been widened, and have been brought into that position that they can accept specialization fully. I say, therefore, the great question now is this: to realise that our schools should devote themselves to widening the mind and laying the foundations which can be worked upon afterwards. I remember some years ago asserting that technical instruction should be isolated entirely from our schools. I was ridiculed for that remark. It is becoming realised that we cannot treat the technical in the schools, and if we wish it to be carried on successfully, it must be done by continuation schools or specializing schools to meet the various requirements. We have had technical education given to those who are to be clerks, and we have had the industrial portion of the community taught modern languages, which they do not require. I say give the right education to the right person, and that is the one thing which this Chamber has to consider. (Hear, hear.) I believe that commercial colleges, with various departments to suit those who are going into this or that branch of commerce, is the only true solution of the question. I say there are other factors entering into this question which ought to be considered. The parents in the middle classes have been blamed for bringing up their sons to tastes and habits which unfit them to take their place in the commercial life of the nation. I think we must admit there is a good deal in that, but I stand up for the parents, and say this: What encouragements do the merchants give them for training their children to enter offices? I have sent out many boys and I have watched their career, and I will tell you what is the general result. The merchant wants about his premises a clerk with a respectable coat to his back, one who comes from a refined home, and who will give tone to his business. (Laughter.) He offers him little remuneration, if any, and at the time when he expects a prospect, there is none, but his place is supplied by another at an equally low rate. I say, if the merchant would realise that if he wants this high culture and this respectable man, he must pay, and offer such a prospect as will induce persons of this class to send him their sons. It is the merchant who wants educating as much as the clerk. (Laughter.) It is the merchant, I think, who needs to realise this fact, and if he wishes to have English boys in his office he must not expect them to compete with the German who advertises in this way (I cut this advertisement out myself): "Wanted, a position in a mercantile house; two years' experience in Germany. Salary no object." (Laughter and cheers.)

THE CHAIRMAN: I am now compelled to proceed to the next subject, "Continuation Schools and Evening Classes." But I have several cards before me, and I am told by Dr. Garnett, whom I am going to call upon, that the subject overlaps somewhat with the previous one, so that probably an opportunity will occur of calling on those gentlemen who have not spoken on the previous paper.

II.—CONTINUATION SCHOOLS AND EVENING CLASSES.

DR. WILLIAM GARNETT (Secretary to the Technical Education Board of the London County Council) read the following Paper:—

It was not until I saw the programme of to-day's Conference that I understood that there had been allotted to me the whole field of commercial education between the secondary school and the higher commercial institute. When I undertook to provide a contribution to the subject of Continuation Schools, I had in mind the Evening Con-

tinuation School conducted by the School Board or voluntary school managers, and intended to provide two years' training for boys or girls who leave the elementary schools as soon as they have completed the compulsory standards, and are intending later on to join Polytechnics or evening classes in science, art, or commercial subjects—pupils, in fact, who are obtaining their higher elementary or intermediate education in the Continuation School —and I anticipated that there would be others who would contribute their quota to the same subject. The line, if it may be so called, which separates the Secondary School from the Continuation School is of such a nebulous character that I fear this paper will necessarily overlap, in no small degree, those to which we have already listened.

While preparing this paper, I did not know what views were going to be expressed by those who were to read papers on Commercial Education in Secondary Schools or in the Higher Commercial Institutes. In marking out the field that was left to me, therefore, I had first of all to determine for myself what should be the limits of the instruction provided in the ordinary day schools, whether higher elementary or secondary, and at what point the student might be expected to commence his studies in the higher institute. With reference to the former, the trend of opinion amongst those who have considered the subject, and are intimately acquainted with the working of day schools, appears to be in the direction of avoiding as far as possible the introduction of technical commercial subjects into the secondary schools or higher elementary schools. The object of these schools is to train the intelligence, and subjects should be taught, not on account of their intrinsic value but for the sake of their influence as a means of training of the hand, the eye, the memory, the reasoning faculties, or the moral sense. Given two subjects of equal value as a means of trainiug, one of which has a direct bearing upon practical life while the other is comparatively useless, and I suppose we should all agree that the former is to be the subject selected, and we should have little sympathy with those who maintain that the efficiency of a University is to be measured by the uselessness of the instruction which it affords. On the other hand, during the school-boy period, it is most important that mental training should not be sacrificed in the smallest degree to utilitarian knowledge. Hence, attempts at teaching the details of book-keeping appear to meet with small encouragement from educationalists, and it is probable that all will agree that it is a mistake to teach boys to deal with the details of transactions of which they can themselves have no clear conception. Book-keeping can be very much more readily learnt when a boy knows the meaning of a commercial transaction than while he is devoting most of his time to the rudiments of secondary education. Hence, it seems desirable that in the ordinary day schools commercial education should be restricted to writing, arithmetic, with special reference to foreign systems of money and of weights and measures, geography and history, and to a sound foundation for a practical knowledge of modern languages. I shall, therefore, assume that this amount of knowledge is all that is possessed by the pupils on entering the Continuation School.

By Commercial Continuation Schools I understand day schools for boys between the ages of 14 or 15 and 17 or 18 who have already acquired a sound elementary education in Public Elementary or Secondary Schools, who have decided upon a commercial career, and who desire to specialize in commercial subjects. The same course of instruction may be undertaken in evening classes, but must be spread over a much longer period.

The conditions of school life and the manner of acquiring the information are, however, quite as important as the character of the information acquired—probably much more important. Commercial men make two complaints about English school-boys when they enter their offices: the first is, that while the German looks upon his business career as his life, the English boy merely regards it as a means of living. He spends his hours in the counting-house not for their own sake, but in order that he may be in a position to enjoy the hours of liberty, and he works for eleven months in the year for the sake of the one month's holiday, while the continental clerk finds at least a considerable portion of the pleasure of his life in his daily routine. The other complaint is, that English school-boys,

especially those from secondary schools, do not carry their knowledge ready to hand. The energy they possess is not in an available form, and they are incapable of bringing their knowledge to bear on a practical point when it arises. In this respect it is said that the boy who comes straight from the public elementary school has an advantage over the boy who has been trained in the secondary school. It is probable that the boy from the elementary school has less power of continuous thought, less independent power of acquiring knowledge and less intellectual resources, than the boy who has been left to shift for himself in the lower forms of a public school, but what he knows he has ready to hand, and, like the street arab, is able to utilise all his mental resources in providing his livelihood, or in dealing with any circumstances which arise.

I am not prepared to suggest a remedy for both these difficulties. With regard to the former, the work of the school should be made so interesting to the boys as to compete on even terms with the attractions of the playground, and it is questionable whether additional work should ever be given as an imposition for misconduct; as far as possible the acquisition of knowledge should be dissociated in the pupil's mind from any notion of punishment. With regard to the latter difficulty, it may be more easy to find a solution, for boys may very well be taught to apply their knowledge to practical questions, which may be brought before them in concrete form by the teacher. In this respect laboratory work in experimental science affords perhaps the best training which is possible within the school. In marking out, therefore, a course of study, whether in the secondary school or in the Continuation School, for boys who are intending to enter upon commercial life, I would lay very great stress indeed upon practical laboratory work, and I would at first teach book-keeping in connection with the laboratory note-book. It is true that the transactions to be dealt with—the measurement of a length, an area, a volume, a specific gravity, a temperature, a quantity of heat, the thermal capacity of a substance, the elasticity of a spring, the work done in its deflection, and so on—may be very different in kind from the transactions recorded in the books of the merchant or banker, but if the laboratory note-book is properly kept, the same principles will be adhered to. Neatness, accuracy and completeness, are the three desiderata in connection with the laboratory note-book. On the question of neatness it is unnecessary to enlarge; the accuracy with which the observations are recorded is of the same importance to the student of experimental science as the accuracy of the entry in the merchant's ledger; and the leading principle of the note-book, like that of the books of commercial houses, is completeness in the record which is presented. Experiment, observation, inference, are all to be faithfully recorded, and no conclusion is to be set down unless the full data on which the conclusion is based are clearly shewn. For a boy who has been thoroughly trained in keeping his laboratory book in this way, the book-keeping of the merchant's office will be shorn of many of its difficulties and of most of its pitfalls. It would take us too far away from the purpose of this paper to give anything like a complete syllabus of the elementary measurements which the pupils should be taught to carry out. The areas of regular and irregular figures, the volumes of prisms, pyramids, cones, spheres and other solids as determined from their linear dimensions, and also by weighing in air and in water, the specific gravity of common substances both solid and liquid, the use of the balance, the hydrometer and the thermometer, are examples which will be found set forth at greater length in the syllabus of Elementary Experimental Science prepared by the Incorporated Association of Head Masters, and in syllabuses issued by other teaching, examining or administrative bodies.

It must, of course, be remembered that the training which will enable a boy to pass a satisfactory examination in school subjects will not necessarily make him a successful man of business. This requires other qualifications, which can to some extent be developed by a properly organised school training, but which cannot be created. The eminent man of science, who has learned so much that he realises that he is only playing with pebbles on the beach, and qualifies every statement from the consciousness that the discoveries of to-morrow may falsify the beliefs and theories of to-day, will not make an ideal commercial traveller. At the same time, the contact with actual things in place of books and the experi-

ence in ascertaining truth by direct and personal observation which would be provided by such a laboratory course as that just referred to, will give a boy confidence and assurance, and enable him to speak with that certainty about matters respecting which he has made himself acquainted as will carry conviction to the minds of his customers, without producing the impression of shallow omniscience which is characteristic of the typical salesman.

But it is the duty of the school not only to impart knowledge, but to provide a moral training; and for this purpose a well-graded system of practical measurements, if properly carried out, will develop habits of care and accuracy of observation and of calculation and a love of truth, which will have its influence throughout the whole of the boy's life and affect all his transactions. To this end it is important that the same quantity should be measured by two or three independent methods and the results compared, the measurements being repeated until the results are within the errors inherent in the apparatus. Moreover, the methods of experiment and of measurement which are taught in the physical laboratory will be found applicable to very many practical problems which will afterwards arise in the course of business, while the habit of closely observing minute differences will be most valuable in subsequently dealing with commercial commodities.

The starting point of the commercial Continuation School has been indicated above. From what has been said it appears that the boy entering the school is to be expected to have some knowledge of a modern language or two, besides his mother tongue, to have been well trained in arithmetic, in history and in geography, while he may, or may not, have learned something about the principles of book-keeping. He must be a neat and rapid writer, as this art can be acquired much more easily at an early age than in later life, and if he has already received some experimental training in physical science, so much the better; if not, elementary measurements should form one of the chief subjects of study during the first year or two of his work in the Continuation School. Having thus enumerated the subjects bearing upon commercial education which it may be expected that the pupils will have studied on entering the school, it is necessary to consider what they will be expected to know when they leave, and the work of the school will then necessarily lie between the two.

The superior limit is presumably fixed by the requirements of the entrance examination of the Higher Commercial Institute. In the *Institut Supérieur de Commerce* of Antwerp, the examination for admission includes the following subjects, which are taught in the preparatory course of the Institute previous to Matriculation—French, German, English, History, Geography, Book-keeping, Arithmetic, Algebra, Geometry, Natural Philosophy, Chemistry, Commercial Law and Political Economy. The students who have gone through this preparatory course are regarded as qualified to enter the special courses of study arranged for the matriculated students of the institute, which in the case of successful students lead up to the final diploma. I am not disposed to lay great stress on Commercial Law and Political Economy in the Continuation School, I would rather press the importance of freehand drawing, not as a compulsory subject, but as an optional subject to be encouraged as much as possible. It is for other contributors to this Conference to state what should be the subjects taught in the Higher Commercial Institute, and how they should be taught; but it is necessary at this stage to point out that the Higher Commercial Institute for which the Continuation Schools, which are supposed to be the subject of this paper, are to form a preparation, is a school in which English commercial subjects are taught in English by Englishmen, but in which there are separate departments for French, for Spanish, for Italian and for German commercial law and practice, each taught by a native of the particular country, who has received a thorough practical training, both in the schools and business houses of the nation the commercial practices of which he is to teach. Four nationalities have been mentioned, but it is by no means necessary that the foreign departments of the school should be restricted to these four. It is essential, however, that the French department should be virtually a little bit of Paris brought into London. The whole of the teaching is to be in French—French thought is to pervade the department like an atmosphere, and the student who enters

it must be able freely to converse in French, and to understand lectures of a more or less technical character delivered in that language. He must, in fact, be in precisely the same position as he would be in were he to enter a school in Paris, in which the teaching is exclusively given in French, or a Parisian mercantile house, and the same conditions must obtain in every foreign department of the school. It is not suggested that any one student should study in all these departments; as a rule an English student will probably content himself with two out of the four or five foreign courses of study, but in the two languages which he selects he must be thoroughly prepared before entering the school to profit by the instruction provided. Hence, among the most important subjects of study in the Continuation School must be modern languages. I am not going to challenge the criticism of the Modern Language Association, by entering into details as to the manner in which languages are to be taught in any class of schools; I will only say that they must be taught as living languages, and with a direct view to preparing boys to profit by the teaching afforded in the departments of the Higher Commercial Institute to which I have referred. The Modern Language Association itself will be quite capable of saying how this object is to be effected. Only the other day I heard of a school for quite small boys in the Midlands where, in some of the classes, the whole of the teaching was carried out in French or German, and the boys were required to answer exclusively in the language which was for the time in use, so that to a great extent the boys attending this school had advantages corresponding to those which they would have secured had they joined a school in France or Germany.

History and Geography should be taught with a definite bearing upon industrial and commercial development. I do not mean that the teaching of geography should be confined to what is commonly known as commercial geography; physical geography must precede, or at least accompany, commercial geography, just as antecedent physical conditions have generally determined the positions of great commercial centres, and the lines of trade routes. Geography, therefore, in all its aspects, physical, political and commercial, must be taught as one science, undivided and indivisible; but this is a very different subject from the geography of the text-books, in which everything bearing upon commercial enterprise, its history, its development, and its varied conditions in different parts of the world, is scrupulously omitted.

In the teaching of Arithmetic care should be taken that the subject of Mental Arithmetic is not neglected. As a rule, boys are better at mental arithmetic the lower the form in which they are working, and mental arithmetic is altogether neglected in the upper classes of our secondary schools, so that at the leaving age the boys have lost entirely their power of rapid mental calculation. Special attention should be given to arithmetic in connection with mensuration, and to approximate methods of determining areas and volumes. This subject is closely associated with laboratory work, to which reference has already been made.

The nature of money, different monetary systems and the world's exchanges, should receive considerable attention, and should form the basis of very many of the arithmetical exercises provided for the classes; and though the mysteries of bimetallism may well be relegated to a later stage, the monetary systems of the chief European nations should be as familiar to the student who leaves the Continuation School as the £ *s.* *d.* of his own country.

Algebra should be taught at least as far as progressions, but more care should be devoted than is usually the case to imparting a clear understanding of the meaning of algebraical operations, and algebraical methods should constantly be illustrated in their application to practical problems. In the teaching of geometry special reference should be made to its application in practical mensuration, and whatever methods may be adopted for dealing with geometry as a science, geometry as a practical art should not be neglected. The use of the ordinary drawing instruments for the practical solution of geometrical problems is most valuable to the commercial man in very many departments of his work;

and in this connection it may be pointed out that freehand drawing, and especially the making of freehand dimensioned sketches, may be more important to the salesman or commercial agent than geometry itself. The facility for rapidly putting upon paper a clear exposition of a mental conception, so that a client may readily understand the picture which is in the mind of the draughtsman, is one of the most valuable qualifications for the business man.

The elementary laboratory course, which has been referred to above, will have its natural development in the Continuation School in the experimental study of elementary mechanics and the elements of heat, light and electricity on the one hand, and of practical chemistry upon the other. The extent to which a commercial student should be encouraged to study chemistry or natural philosophy must depend very much indeed upon his individual tastes and upon the character of the business which he proposes to enter. Every boy clerk ought to have had the opportunity of learning in the laboratory the methods of making accurate measurements of length, area, volume, weight and density, but the connection between science and commerce is now so intimate that no commercial school can afford to dispense with facilities for the study of at least the elements of practical chemistry and physics.

Shorthand and typewriting would, of course, find a place in the Continuation School, but it is by no means essential that every student of the school should be converted into a typewriting stenographer. For those who mean to make this branch of commercial work a speciality every facility should be provided, but the study should be regarded as a special branch of the school's work and not as a necessary part of the curriculum. The principles of book-keeping should be taught throughout the school, and no student should go through the course without obtaining a thorough knowledge of these principles and of the objects of the several books usually to be found in a merchant's office.

The elements of political economy may perhaps receive attention in the upper forms of the Continuation School; and here, too, the student may be introduced to the first principles of commercial law; and, as an extension of the course upon experimental science, new interests should be introduced into the studies of the pupils by occasional lectures on the subject of commercial commodities, as preparatory to the more extensive courses of study, which will be provided in the Higher Commercial Institute, in connection with its museum of economic products, and with the visits which will be organised by the staff to docks and warehouses for the purpose of studying these products in bulk.

There is one other subject which should not be neglected in the Continuation School, and which should, perhaps, have been referred to under the head of geometry. I allude to the graphic representation of variable quantities by means of curves. The pupils should be encouraged to plot curves upon squared paper, representing the variations of temperature, or of the height of the barometer from day to day, the current prices for some selected commodities, the rates of exchange with particular countries, the number of students attending different classes at the school, or any other quantities which vary from time to time, so that they may acquire the habit of graphically representing, for the purpose of rapid comparison, any of the variable quantities with which they may have to do.

A student who has successfully gone through the course of study outlined above, will find himself well qualified to enter the Higher Commercial Institute, about which we are to learn at a later hour to-day. As regards the minimum age of entry into the Higher Commercial Institute I should like to see 18 adopted, but I recognise that at first it may be desirable to provide for the admission of somewhat younger students, at any rate into the preparatory department of the Higher Commercial Institute, because it will be necessary for that school to have exerted its influence upon teachers before it will be possible to provide a thoroughly satisfactory preliminary training in the Continuation School or evening class.

I have not entered on the question of the constitution and management of the Continuation Day Schools or the Evening Schools, nor have I touched upon the question of the local authority whose duty it should be to provide, maintain, or control such schools, and the

central authority in which all control should ultimately be focussed. I have not even considered whether the commercial schools should be under the Central Educational Authority, or, as the agricultural schools and colleges are aided by the Board of Agriculture, so the commercial schools, following the example of some continental nations, should be placed under the Board of Trade. I will only say that I am not advocating any such policy. These are questions which may be said at present to be *sub judice*, and to raise a discussion thereon would divert the attention of the Conference from the main issue, namely, the subjects to be taught and the manner of teaching them. A word may, however, be said about the schools and the teachers. There can be no sufficient reason why the buildings of the endowed secondary schools and of those public elementary schools which are provided with laboratories for practical science should not be freely used for the purpose of evening continuation schools of a commercial type. Regarding the teachers, the question is sure to arise whether those employed in evening schools should be professional teachers or specialists engaged in City houses during the day. The specialist has an important part to play in the Higher Commercial Institute, but in the Continuation School the teacher must be essentially a teacher, whatever else he may be. Some practical business experience will be of value to every commercial teacher, but the object of the Continuation School is not to make a shipbroker, a valuer or an East India merchant—it is to teach the principles of commercial science. Systematic training can do much for the equipment of teachers; practical experience of business is of value to the teacher in the commercial Continuation School; keeping "in touch" with business throughout his life by living in the atmosphere of a commercial circle may be of still greater value; but it is certain that to be successful with young boys the teacher must have a genius and a love for his work.

DISCUSSION.

Mr. J. H. Reynolds (Director of Technical Instruction, and of the Municipal Technical School, Manchester): Mr. Chairman, Ladies and Gentlemen, I rise in the first instance in my capacity as Chairman of the Union of Lancashire and Cheshire Institutes for Commercial and other Examinations; and I think it may perhaps be interesting to this audience, drawn as it is from every part of the kingdom, to know what is being done in the way of encouraging commercial education in evening continuation schools in one of the busiest commercial centres of this country. (Hear, hear.) The examinations, which are intended for evening students, are only just a month or two since concluded. The number of papers worked at these examinations in the obligatory subjects was 8,006, and in the optional subjects 6,155. The obligatory subjects comprise handwriting in the commercial grade, commercial arithmetic, commercial English, and book-keeping. The optional subjects comprise commercial geography, commercial law, business routine, shorthand, typewriting, advanced French, German, Portuguese and Spanish. Now, I think it only fair to an audience like this that they should clearly understand what these comparatively large figures mean. In the first place, I must premise that Lancashire and Cheshire are covered with a network of evening continuation classes, the like of which I think can hardly be found in any similar district in England. These classes are organised in a large measure with the object of preparing for the examinations of the Union of Institutes; but out of this large number of 14,000 papers it is only right that you should know that 5,000 of them are in shorthand, and nearly 2,700, or rather more, 2,800 are book-keeping. In commercial English only 2 per cent. of the papers were worked; in advanced French, 59 per cent.; German, 25 per cent.; and Spanish, 37 per cent. These figures shew therefore that the chief object of the evening student is to gain that which will bring him immediate emolument. He hopes, if he learns shorthand, that he may by that means more readily get into a merchant's office, forgetting at the same time to take up important subjects like his own language and foreign languages, which alone can help him to qualify as a commercial clerk of any real value. I think it will be found that in the question under discussion, namely, the establishment of day commercial colleges or higher schools, that we shall be in the same position that we find ourselves in to-day with regard to the schools for industrial education for day students. It is nearly impossible to get any

satisfactory supply of properly prepared day students. Even in reference to this matter of foreign languages, taught in the commercial evening classes of Lancashire and Cheshire, it has been found absolutely necessary to require a candidate who is qualified to take a prize in the examinations of the Union in French and German that he shall present at the same time a first-class certificate in English. I think it may be well, perhaps, to speak the experience of one of the most prominent foreign merchants of Manchester, largely engaged in the Spanish trade, extremely careful as to the class of employés he takes into his service. He asks not that they shall have a commercial knowledge of English, or of French, or of German or Spanish, but that they shall be thoroughly well grounded in the general subjects of secondary education. (Hear, hear.) I, for one, am quite convinced that we shall go on wrong lines entirely if we attempt to introduce, especially into our higher grade board and elementary schools, subjects of a special character. (Hear, hear.) I have been particularly struck with the comparison drawn by Mr. Albert Spicer as to the future career in commercial houses of the boy from a secondary school and the boy from a higher grade school. It seems to me that it opens up the serious question whether we are doing right by the boys in our higher grade board schools, and whether it does not mean that we are handicapping them by a hard and fast curriculum; whereas the boy in the secondary school is under tuition of a more elastic and general character, conducted by men of high cultivation. We ought, at least, to give to the great mass of our middle-class students, those who are found in higher grade schools, the advantages that come from the elastic curriculum and cultivated teaching of the best secondary schools, especially if it means that it only gives in the one case a superficial smartness which operates to the disadvantage of the boy as his experience increases, and gives in the other case the boy a wider and more general training, a supreme advantage in the business experience of his life. Further, I desire to say that I largely agree with those who have said in this morning's discussion that a good deal of the blame of the non-success of technical day schools is to be laid at the door of the employer. It is most difficult to get a boy of 17 or 18 years of age either into an industrial concern or into a commercial house. I do not mean to say there are not intelligent employers—I know there are (Laughter)—who take great pains with the employés whom they introduce into their business, and who do not encourage those who have a good previous education. I know one large home-trade house in Manchester which takes extraordinary pains to enquire into the education, character and training of every boy who goes into it. Mr. Mather, of the well-known engineering firm of Messrs. Mather and Platt, announced to a public meeting last week that in future a boy would not be taken into the firm's employ who did not present a certificate of a thoroughly sound education, and who had not had the advantage of the training of a technical school before he was allowed to enter into their employ. If employers will adopt a policy of this kind, I am certain that the successful establishment of technical day schools—and this, I think, is the real crux of the matter—and of commercial day schools also will be assured. (Cheers.)

Mr. A. A. Wood (Common Council): Mr. Chairman and Gentlemen, it is a very desirable thing that in a conference such as this on commercial education, there should be the views tendered not only of those engaged in tuition, but of those who have to use the material that these teachers turn out. (Hear, hear.) That justifies me for a short time in saying a few words on this topic. I have the very largest sympathy with the holding of evening classes. The ordinary lad that comes to a school is after all but a very ordinary lad, and the brilliant boy is really the exception; the dull lad has to come and make his way into a commercial house, and it would often happen that the boy who was a dull boy at school was dull, not because of any deficiency of intellectual ability, but because of a failure to appreciate the importance of utilising the tuition that is being given to him by his masters. Entering a commercial house, the lads, such as I have in my mind, learn what is a most important lesson for young fellows to learn, not how much they know—which the brilliant lad from school often takes his stand upon, "I know everything and can come and teach you"—but discover how little they know; and a lad's mind is then, if he has any go or pluck in him at all, ready to receive the instruction that is necessary for his future commercial career. Now, I have, as I say, the very warmest sympathy with the

evening school, and I believe a lad who has wakened up and realised his responsibility, who desires to equip himself for a future commercial career, if he can have the opportunity of attending these evening schools, and studying in these evening classes, may make up perhaps for the time that he has lost earlier in his life. There is this thing also in regard to the evening class student, that he engages in his work with great earnestness and zeal. He knows what he wants, and he is willing to give up the time to acquire what in his opinion is desirable of acquisition. I am very anxious also, speaking as a commercial man, that traders and others who have in their employ young fellows who desire opportunities and scope for self improvement for their future commercial career, should afford their employés facilities for study. (Hear, hear.) It is too often the case that the hours of business do not quite fit with the times of the evening classes, and a young fellow is prevented from going to those classes which he otherwise would desire to do. As regards the general scheme of commercial education laid down by Dr. Garnett in the secondary schools and evening classes, well, of course, any lad or young fellow who can accomplish all that Dr. Garnett lays down is very much above the average; in fact, I think a young fellow who did all that would be little short of an angel or intellectual miracle. (Laughter.) And that, Dr. Wormell said, was an impossibility. But I desire, with regard to this Conference, that the evening class should be developed as far as possible, and that a good scheme of commercial education should be laid down, so that the young fellow I have in my mind should know to what point to direct his attention, and how he is to accomplish his information. (Cheers.)

Mr. Edward Bond, M.P. (Chairman of the Technical Education Board of the London County Council): Mr. Chairman, Ladies and Gentlemen, I was anxious to say a few words in order to express the interest which the Technical Education Board takes in this Conference, both because it is a matter which vitally concerns many of the interests with which they have to deal, and for this special reason, because we have now a committee sitting on this subject of the Higher Commercial Education, and the best means of promoting that in the City of London. That committee has been sitting now for a considerable time and is approaching the end of its labours. But you will understand that I have come here rather more with the view of gathering suggestions and hints as to the course which ultimately it will be the duty of the Board to pursue than to instruct an audience of this kind, or to let the cat out of the bag and say what it is that the Technical Education Board is thinking of doing. The mind of the Technical Education Board is not yet made up; we are still in the position of those who are gathering information and endeavouring to excogitate the right kind of scheme, and I feel sure the deliberations of this Conference will be of great assistance to us in coming to a right decision. But there are just one or two matters about which a very general consensus of opinion seems to have been established, or at all events in regard to which it seems to me the information which has come under my notice has enabled me to make up my own mind with regard to the education which is to fit a boy to become an ordinary clerk. The ordinary clerk goes into a London commercial house at the age of 15, or perhaps a little older, and what his employer seems to demand of him when he comes there is, that he should be able to write well and be able to accomplish ordinary arithmetical tasks with precision and facility, and the complaint of the employers is that the boys who come to them, or a good many of the boys who come to them, are not properly qualified in those respects. There is no occasion to alter the curriculum of our schools in order that they should be so qualified, because arithmetic and writing are already upon the curriculum of all schools. What seems to me to be required is, that if the teacher is desirous of seeing a large number of his boys going into commercial houses, more attention should be paid to those two very elementary subjects. If, in addition to that, the boy has got some grounding in one or two foreign languages, though that is not necessary apparently in all houses of business, he has got almost as much as the ordinary employer will require of him at first starting. If he is to rise in the house in which he finds himself—and I am told that in a large number of commercial houses at all events the rule is that you should begin at the beginning, and the men who are occupying superior positions in those houses have worked themselves up from the very bottom of the ladder—if he desires to rise, I agree that facilities for improving himself in commercial subjects and in general

knowledge should be given to him by way of evening classes, and that the employer might do well if he would give him special facilities for attending such classes. (Hear, hear.)

There is another aspect of the case, and that is the giving of the higher commercial education. It is there that the difficulty comes in. It is there, I think, that some things that have been said about the employer not requiring education seems to have a very strong bearing, because it does not appear to be at all established at the present moment that if you keep a boy away from the counting-house or warehouse until he is 17 or 18, giving him an education specially directed to fitting him for commercial pursuits, that it will be very easy to find a place for him when he leaves the secondary school. We have, therefore, to some extent, to create the demand as well as to supply the boys who are fit to meet that demand when created. But all things must have a beginning, and I cannot but hope that if conferences of this kind take place—if the employers of London can be convinced that it will be to their advantage to take into their employment at 17, 18 or 19, or an older age still, boys who have received a thorough education specially directed to fitting them for commerce—we shall succeed in obtaining situations for boys who may have gone through some such course as that which Dr. Garnett sketched out.

I think we had a very valuable suggestion from Mr. Howard, which has been echoed by other people, and that is to warn us from attempting to teach those boys in the school the actual things they will have to do when they get into commercial houses. It is quite evident that if, for example, you try to teach book-keeping in any detailed way the chances are that the boy who has learned book-keeping on a certain system will find he has to learn a totally different system when he comes into actual contact with the business, and that he will be rather apt at first to resent the change, and think he knows much better how book-keeping ought to be done than the employer with his old-fashioned and old-established notions. I think in our secondary schools or continuation schools we should not attempt to replace the counting-houses or places of business, but that we should give an education which should develop the intelligence of the pupils and make their minds flexible for the appreciation of commercial problems—well equip them so that they can express themselves intelligently both in their own language and other languages, and also, as Dr. Garnett has suggested, put their ideas upon paper in a graphic form so as to engage the attention and readily inform the mind of those with whom they may be brought into business relations. If we do that, and succeed in obtaining occupations for those boys when their course is completed, a very considerable step will have been made towards the development of that higher commercial education that we are brought here to-day to consider.

Professor F. G. Ogilvie, M.A., B.Sc. (Association of Technical Institutions): Mr. Chairman and Gentlemen, I wish to draw attention to one or two points of difference in the conditions which appear to obtain in the provinces and those which appear to obtain in London. Dr. Garnett speaks of the work of the continuation and evening schools as being for pupils between the ages of 13 and 17. It is important for those who are interested in commerce in the provinces to notice that in these places evening classes are required for students up to the age of 24 or 25, and therefore many of the subjects which are relegated here to the tertiary section of work in commercial education will require to be made in evening classes in the provinces. Let me illustrate the matter by a reference to the case, as it obtains in Scotland. In Scotland secondary education is to a very large extent now already organised, and throughout Scotland there is a system of certificates which practically give to every secondary school a measure corresponding in the main to that which is established by the London Chamber of Commerce by their two years' certificate. Indeed, in most subjects, the standards for the Scotch certificates is higher than that of the London Chamber of Commerce junior certificates. The number of successful candidates for these certificates are thousands, and in every large town in Scotland we have practically the majority of the better educated clerks in possession of these certificates before they enter the business houses. (Hear, hear.) The age of these clerks is 16 or 17, and I have never heard of any particular difficulty of well-educated boys of that age finding places in the counting-houses and offices of merchants and tradesmen in Scotland. There is no doubt at all that throughout the large towns of Scotland we

have a position of this sort. The better class clerks are all in possession of a good secondary education before they go to the office, and they continue their work in the evening classes. I wish to mention that now, because there are here a few of the subjects which, according to the programme, assumed as for London, are practically relegated to the tertiary school, and which require to be provided for in every properly organised system of evening classes in any of the large provincial towns. Counting-house work, the consideration of the shipping trade, and shipping documents, exchange, commercial law, banking, and insurance—classes on these subjects and lectures on these subjects—command very large attendances of clerks, who are already in senior positions in the offices, young men of from 20 to 25. The one difficulty which meets those who are charged with the organisation of such work is that of finding adequate teachers. The search for such teachers must be among men who are themselves actively engaged in the business which they have to teach. The teachers of such classes must in the first instance be commercial men, and in the second place they must be teachers engaged in and familiar with the practices of the particular section of commerce with which they are to deal. I am aware that the subject of which I am treating trenches rather on the subject on the last item of the programme, but I say it now because every member of a provincial chamber of commerce should recognise that the greatest possible difficulty is experienced in providing adequate teaching for these higher and by no means less important sections of the work which falls to be done in such provincial centres. (Cheers.)

Mr. Guy Pym, M.P. (Chairman, Bedford Harper Trust): Sir Albert Rollit, Ladies and Gentlemen, I came here to-day to listen, and not to speak. I had not the slightest intention when I came into this room to have the honour of addressing you on this most important, difficult and technical subject of commercial education. I feel, to a certain extent, that Sir Albert Rollit was justified in asking me to say a few words, as I represent, as Chairman of the Harper Trust Schools at Bedford, a very large educational institution, an institution which embraces not only the higher education of our grammar school, our modern school, and our high school for girls, but also a very large number of children in our elementary schools. (Cheers.) This experience brings directly before us, as Governors of that Trust, the question, in the first instance, of the over-lapping of the boundaries of these different schools, and one of our great difficulties is to draw a hard and fast line between the work which is applicable to each of these schools. What I hope from the introduction of the Secondary Education Bill, on the back of which I have put my name, which has been lately introduced into the House—what I hope from that Bill more than anything else, is that these boundaries will be well-defined, that the chaotic conditions of our present system of education will be regulated and placed in a condition wherein each class will balance one another, and each section do its special work. With reference to this particular matter before us at the present moment, evening continuation schools, what I gather from this meeting is that there are certain advocates, more especially the gentleman who read the paper, who consider that the class of education to be given in the secondary schools should be of a highly technical character. I find, on the other hand, there are gentlemen, like the last speaker and other speakers also, who think that is too high a standard altogether. I agree with the latter opinion. (Hear, hear.) What is constantly before me, as a Member of Parliament—and every other member, I daresay, has the same experience—is the fact that one's constituents are constantly writing to ask one to get employment for their sons. I quite agree with what the other speakers have said, that there is very great difficulty, and increasing difficulty, in doing this. We are turning out of our educational institution at Bedford a very large number of boys every year, an increasing number of boys, who are all looking for employment in life. As a rule their parents are not very well off. They are retired officers, retired civil servants, and people of that stamp, to whom it is most important that they should find some employment for their sons. If you place the standard so high as it has been placed by the reader of this paper, before the boy can get employment in a commercial house you are strangling altogether the opportunities which exist even at the present time. I think there is no need for it, and I agree with previous speakers, and especially with one speaker here, who was mentioning the brilliant boy who came into a commercial house and thought he knew every-

thing, and a great deal more than he could be taught there, that he is not the class of boy you want at all. You want a boy who has got an open mind, who has intelligence, who has industry, and a moderate ability. That boy will learn the lesson which is taught him, and you may be perfectly certain of this, that, having given his attention to these matters, his interest will be very great in them, and he will have every chance of a successful career. (Hear, hear.) With regard to the continuation classes, I must confess my knowledge of them is very limited, and that information which I have inclines me to believe that the systems which are carried on all over the country with regard to these continuation classes are all, more or less, at variance with each other. There is no regular system of continuation classes that would apply to the whole country, and I hope that one result of this Bill which has been brought into Parliament, and which, I hope will come before Parliament next year, will be to put that, at any rate, into proper form. With these few remarks I shall sit down, again thanking you for your kind attention. (Cheers.)

Mr. S. B. Boulton (Vice-President of the Chamber of Commerce): Mr. Chairman and Gentlemen, as it is so near luncheon, I shall take a very few moments, but I think as we have been edified and instructed by what has fallen from our friends, the professors, on very important points, they will also, I am sure, be very glad to hear from us, who are the employers of these young men whom they turn out in such numbers, what are our views on the subject, because after all you must educate these young men so that they are fit for the duties they have to fulfil under us. (Hear, hear.) It is therefore important, I think, and I am sure it is the endeavour of the professors and schoolmasters to find out exactly what we want, otherwise they will be miserably misleading the young men they are bringing up. I speak from some knowledge, because I not only have a business house here, but forty years ago I established a business house abroad. I find, notwithstanding all that is said about foreigners, that I am enabled to employ Englishmen as clerks, not only in my office in London, but the clerks in my office in Paris are also Englishmen. (Hear, hear.) Therefore, it is not a question so much of the nationality of the boys themselves; it is, I think, the way in which they are selected. Now, we have heard something about the duty of employers to find positions for young men who have gone through a more advanced commercial education. I think we should all be very glad indeed to get such young men, but we must bear in mind—and that I cannot impress too strongly upon the professional gentlemen who have spoken to us—that *it is they who must find out what we want*, and then they must prepare the men who are to take the positions. (Hear, hear.) We cannot possibly take young men into our offices and make positions for them unless they are qualified to compete with the boys who come from the Board Schools. If a well-educated man goes on the village green to play cricket, he is supposed to play as well as the yokel who plays against him, and if he does not bowl or bat as well, he does not fall back upon his superior social position. He has to learn the thing he has got to do. And when a boy is brought up at the ordinary commercial school or public school, or has the advantage of going afterwards to the university, the same thing must take place. I have known many young men in the course of my experience who have gone through a university career who would be only too glad to come into City offices, and their friends would be only too glad to find them positions. (Cheers.) It is for you, gentlemen, to consider whether, in the public school career and university career, there is exactly that kind of training which commercial men require. I speak also from some experience there. I have two sons and three sons-in-law who have passed through public schools and the University of Oxford. They all of them speak with that touching affection which Englishmen generally feel for their public schools, and they all of them speak of their university career as one of the most agreeable portions of their lives; but each of the five says this—and they are all in business—that as regards assisting them in the preparation for a commercial career, their life at Oxford was much too pleasant. (Laughter and cheers.) That touches upon what has been said about self-denial and practical application to the thing you have to do, and if gentlemen professors at Oxford want to turn out men of business, they must not give them six months' holiday in the year, and must not take six months' holiday themselves. (Laughter and cheers.) That is the practical piece of advice I have to give

them. I think, so far as regards employers finding situations for young men who are trained for a commercial life, the London Chamber of Commerce has, at all events, taken a very practical step in that direction. We have a list of all those who passed the regular curriculum as required for our examinations. Those lists are forwarded to some 4,000 members of our Chamber, and either I am very badly informed, or else it is the case, that all those who pass the examinations creditably are sure to find situations in commercial houses in connection with the London Chamber of Commerce. (Cheers.) That, I think, is a very great point in answer to something said on the other side. In the last paper which was read I heard something with regard to the study of political economy. I think that was treated rather slightingly. I cannot impress too much upon all gentlemen connected with secondary education that that science has *not* been relegated to Saturn—that it is a science that we must all learn, but if we learn it badly we shall learn it to our peril. It ought to be taught to all young men, especially those entering on a commercial career, because the whole system of successful commerce is founded upon, and must follow the principles of political economy. (Cheers.)

Col. R. Williams, M.P. (President, Institute of Bankers) : I only rise to say a few words at the Chairman's request. The words of the last speaker have rather given me a cue to speak for a minute or two, to press upon the teachers present the necessity of finding out what it is employers want, and I think our Institute of Bankers has gone upon that tack. (Hear, hear.) Of course banking covers a limited range of subjects. We neither have any necessity for laboratory students nor for a great deal of history or geography. Of course I do not say these subjects do not aid any man, but I take it *qua* banking. What the Institute of Bankers have done is this : they set to work and formed a committee, and the Council took into consideration as to what were the principal things which bank clerks ought to know, and upon which they wanted more instruction. We then provided the very best lectures we could in London upon those subjects, and we gave certificates to the successful students. With a view to encouraging the students to go on after one examination, we give also now a higher certificate after a second course of reading at the end of a second year. I am glad to say that by beginning in that way, thinking of what was really necessary to properly equip those with whom we had to deal, and whose interests we have to watch, we have done a great deal of good. We have succeeded in two things. We have succeeded in raising a certain higher standard among a certain number of bank clerks, and we have succeeded in raising what is the great thing, a desire for education in the profession. We have also succeeded in interesting the employers, so that in many offices, I am told, it has got to be a condition of employment that the applicant should hold one of the certificates of the Institute of Bankers. (Hear, hear.) We began that in London, but it is now spreading all over the provinces, and our last examinations were held at something like fifty or sixty different centres with a very large number of students. I think that, perhaps, is interesting as showing a little bit of what has been done in practice, and may answer the remarks of the last speaker as regards finding out what employers really want. (Hear, hear.) On the question of evening continuation schools, I had not the pleasure of being present all through the discussion, and therefore I may be saying over again what has been said before, but the real age, it seems to me, for continuation schools is 12½ to 13. I have no doubt it is the same in London, and those who know our provincial towns know the sad number of boys running about the streets because they are sharp enough to get out of the school standards and so out of the day school, and not old enough yet to be employed in any house of business. Those are the boys we want to get hold of, and for whom we want these continuation schools. I strongly suspect that Sir John Gorst in his address may have said something about raising the age of exemption from schools. That, after all, is the main thing which we want to go for. (Hear, hear.) It is not a bit of use letting boys go out of the 6th standard and think they are educated and fit for anything. If we grant—and I think it must be granted—that for the general mass of our schools we have to make the 6th standard the highest standard, there is in every town a large class of boys who ought to be compelled to go to some continuation schools. In those two years it may be possible to give them the grounding of some sort of scientific education. The press of competition is getting so keen nowadays that boys are getting even into banks

at much younger ages than they used to. They are being taken on at low rates of salary. But if we can get hold of the boys in the years now wasted between the elementary school and their employment, we may possibly be able to give them some grounding of further education which may give them a taste to go on in their evening hours, and then, I think, after that, the continuation schools must be, more or less, special schools to enable boys to take up general education if they will; but primarily it must be intended to fit them for the walk in life they have taken up.

The Conference then adjourned for a short time.

On resuming in the afternoon the first subject considered was:—

III.—FOREIGN SYSTEMS OF HIGHER COMMERCIAL EDUCATION.

Mr. C. A. Montague Barlow, M.A., LL.M., read the following Paper on "The General Organization of Foreign Higher Commercial Education":—

Introduction.

Sir H. Johnston, H.M. distinguished Consular representative in Tunis, in his report for 1898, tells us:—"It is the opinion of most Consular officials in this country that British trade would extend considerably if enterprising British firms would send out travelling agents to push their business, but agents who are able to converse in either French or Italian. Well-intentioned young men arrive here unable to speak a word of any language but English, with the result that their French or Italian-speaking customers cannot understand them, or make themselves and their peculiar requirements understood."* The same complaint has been the common topic of the Consular reports for years; that English trade is hampered everywhere by ignorance of the language of the country, of its weights and measures, and of its media of commerce. The British subject obtains from his Consul, or from a directory, most probably out of date, a list of local traders who deal in what he wants to sell; these he bombards with price lists in the English language which they cannot read, and then he is astonished that they pay no attention to his communications.†

No one pretends, at least I have never met the rash man who did, that success in business could be taught in a school; the great merchant is, of course, like the true poet, born not made. Of many qualities, moral, perhaps even more than intellectual, is he compounded of courage, resourcefulness, energy, knowledge of men; these can only be developped in the actual conduct of commerce. But these qualities we all believe the average Englishman possesses; it is not of the absence of these that our Consuls complain; it is more concrete knowledge, knowledge of things which can be taught, and taught properly, in a school that is required. In other words, it is not so much our commercial education that is in fault, for British commerce itself is the finest education in the world for the merchant, but better commercial instruction.‡

Sec. 1.—Commercial Instruction—What is it?

It is *not*, as I understand it, a general education of the modern type, such as is given on the modern side of our best secondary schools, *e.g.*, the City of London or Merchant Taylors, or in the German realschulen. Such an education would be as useful to the future engineer or architect as to the merchant: by this term I mean instruction which, though educational, *i.e.*, so far as possible mentally stimulating, and not the mere acquisition of so much

* Consular Report, 1898, Tunis, p. 45.

† See Report of H.M. Consul at Danzig, 1897, p. 5. The publication by the International Register Company of Manchester, of their register of British manufactures in several languages is a move in the right direction, but it is stated this will not obviate the necessity for expert commercial travellers. See Report of Mr. Gurney, H.M. Consul at Cherbourg, 1898, p. 5.

‡ See Sidney Webb's paper on Higher Commercial Education, International Congress on Technical Education, 1897.

knowledge of business routine, is yet specialised and directed exclusively to supplying the wants of the mercantile community.

Accepting this general definition, commercial instruction may yet mean various things according to the class for whom it is intended and the subjects taught. Roughly, it means in England one or all of three things: *first*, the teaching in evening classes and continuation schools of book-keeping, shorthand and typewriting, trade tricks which may be necessary, are certainly commercial, but are not in any proper sense education; such courses are intended for the lower ranks of the ordinary clerk class, and are all that the phrase commercial education as at present understood in England usually implies; *secondly*, the teaching in evening or day classes of the above subjects and something more, one or two modern languages possibly, and probably a business course embodying elementary* ideas of office routine, commercial law and political economy, intended for boys whose parents can afford to send them to secondary schools, but not to continue their education after about 16 years—these will supply the ordinary rank and file of the commercial army; *thirdly*, the highest grade of commercial education, provided for those who will be the captains of industry, the leading clerks or junior partners, whose parents can secure them the full course at a secondary school up till 18 or 19, or who, if their parents are the managers or proprietors, may possibly take a University degree first, and then at 22 avail themselves of specialised instruction to get a general outlook, or "übersicht," over the world of commerce before taking a stool in the parental office.

The distinction between those who come from the lower secondary, *i.e.*, boys of about 16, and from the higher secondary grade, *i.e.*, boys about 19, is, for our purpose, fundamental; for the wants of the former private institutions like Pitman's School of Shorthand and Clerks' Correspondence College have catered for some years: for the latter we have at present, apart from the excellent work done by the School of Economics under the direction of Professor Hewins, no provision whatever, and the School of Economics does not profess to cover more than a portion of the subjects required.

Sec. 2.—Organization of Foreign Higher Commercial Education Generally.

Through the kindness of the Education Department, I have been enabled during the last year to pay visits on behalf of the London Chamber of Commerce to schools or colleges of commerce at Antwerp, at Paris and Havre in France, at Neuchatel and Berne in Switzerland. I have interviewed the directors, attended the courses, talked with the students inside the school and the merchant outside, of the position of the schools and the utility of their work. The Swiss schools in particular, to which at present but little attention has been directed in this country, can furnish, owing to the varying conditions of the Swiss cantons and the opportunities they afford for experiment and comparison, some interesting object lessons.

Taking the countries† of Europe in order, Austria has the well-known academies at Prague and Vienna; Belgium the Institut Superieur de Commerce at Antwerp; France has eleven State recognised écoles supérieures de commerce, viz.: in Paris, the École des Hautes Études Commerciales, École Supérieure de Commerce, both under the direction of the Paris Chamber of Commerce, and the Institut Commercial, a private venture; and écoles supérieures at Bordeaux, Le Havre, Lille, Lyon, Marseilles and Rouen. Switzerland has fourteen schools of commerce, though not all of the highest grade. Italy has four of the highest grade, the oldest and best known being La Regia Scuola Superiore di Commercio, in Venice. In Germany the division already mentioned between lower and higher

* See Business Course in Prospectus of Pitman's School of Shorthand.

† The chief authorities are Leautey, "L'Enseignement Commercial"; Stegemann, Kaufmännisches Fortbildungs Schulwesen, 1896; Professor James' Report to Washington Government on Commercial Education in Europe, 1892; "Écoles de Commerce en Suisse," prepared for the Geneva Exhibition, 1896; "Commercial Instruction organised by the Paris Chamber of Commerce," prepared for the Antwerp World's Fair, 1894; Rapport sur la situation de l'enseignement industriel et professionnel en Belgique, 1897; Ammario della R. Scuola Supériore di Commercio, in Venegia, 1897.

secondary education in connection with our subject is very sharply marked; taking boys at nine, some of the secondary schools (*e.g.* the ordinary real-schulen or modern schools) have only a six years' course, and the boys leave at sixteen; others, *i.e.*, the classical schools (gymnasien), semi-classical schools which teach Latin (realgymnasien), and higher modern schools (ober-real-schulen) have a nine years' course, completed when a boy attains nineteen. For the lower secondary grade of boys who leave the real-schulen at sixteen, the doors of many regular commercial academies stand open, *e.g.*, of the *"Offentliche Handelslehranstalt, at Leipsic; †Offentliche Handelslehranstalt, at Dresden; ‡Handelschule, at München; and very many others.§

These Schools do not seem to have met, even in their own line, with the entire approval of German expert opinion. I have heard complaints from the well-known manufacturing firm of Mansfeld, in Leipsic, of the "woodeness" of clerks taught in this Handelslehranstalt, with the addition that this was the general experience.

In 1896 a movement was set on foot by Dr. Stegeman, of Braunschweig, to start colleges of the third or highest type; at the instigation of the Brunswick Chamber of Commerce and of the German Society for Commercial Education, the opinions of some 300 merchants, chambers of commerce, and schoolmasters was taken as to the advisability of founding such a school. Two hundred and forty-nine answers were favourable, and Dr. Ehrenberg, of Altona, was commissioned to write a memorandum as to the lines the college should take. A conference was held at Leipsic on 11th and 12th June, 1897, in which Dr. Raydt,‖ the Director of the existing Handelslehranstalt, took a leading part, and the foundation of a college of the highest or university type was determined on.

This college was opened on the 25th April, 1898, and by the 12th of May, ninety-five students, ranging from 18 years of age to 46, had matriculated. The college has received the recognition and a grant from the Saxon Government, and other colleges or schools of this type are being established, or are in prospect at Aachen, Hanover, and other towns: at the same time the Government is anxious that the experiment should receive a full trial at Leipsic before being repeated elsewhere.¶

Sec. 3.—Typical Schools.

It is impossible to give a full account of all the schools or colleges mentioned. I propose to take the following typical ones, the Écoles des Hautes Études Commerciales and the Ecole Supérieure de Commerce in Paris; the Institut Superieur at Antwerp, the École de Commerce at Neuchatel, the Royal School at Venice, and the Commercial Academy at Vienna, and analyse their organization and work under three or four main heads. Other countries, Norway and Sweden, Russia, America, Japan ** even, have all felt the impulse of this movement towards better commercial instruction; but for our purpose the schools and colleges named will supply the best material. They are not all quite of the same rank, the conditions of education and of commerce in each country being different; to take one instance, compulsory service, as in France and Germany, or a universal three years' apprenticeship as in Switzerland, may cause the age of entry to vary; but for the purposes of this paper they can be treated on a common footing. Of the new Leipsic College I shall say nothing, as Sir Philip Magnus is to give you directly a full account of that.

---

* See 67th Yearly Report, 1898.

† See 44th Yearly Report, 1898.

‡ See 29th Yearly Report, 1897.

§ For a complete list see Stegeman op.-cit.

‖ See Die Hendels Hochschule in Leipsic, die erste in Deutschland; by Professor Raydt, 1898.

¶ For a criticism of German commercial education generally, and of the new Leipsic College, see Beigel, Der Kampf um die Handels Hochschule. Beigel denounces the new college as a "Zwitterding."

** For references, see works already cited.

Sec. 4.—Age and Attainments of Pupils Entering.

The schools or colleges selected do not by any means represent a uniform level of equality, rather an ascending scale, a plateau elevated to commence with but still sloping upwards continually from High School at Neuchatel to the Institut at Antwerp, and higher yet to the new German high schools at Leipsic and Aachen. Ability is not measured by age, but the aim of the schools can fairly be gathered from the ages of the students they admit: other things being equal, a school which takes boys of 16 will be content with a lower standard than one which requires 17 as the limit. The Neuchatel School has a three years' course in addition to a preparatory course of one year, the object of the latter being to remedy defects in secondary education, to perfect foreigners in the French language, and to begin accountancy and the elements of commercial work.* No one can commence the first year's course proper unless he is over 15, and has also passed a satisfactory examination or reached the highest class in a cantonal school or the second class in a classical one. Consequently the average age of entry is considerably higher than 15. Of 149 students in 1896, 129 were between the ages of 16 and 23. The Prague Academy has two divisions, involving a three and a one year's course respectively; the latter (*abiturienten curs*) is instituted only for graduates of the gymnasia or higher grade secondary schools, and is intended to give them a quick insight into the world of commerce; for others a three years' course is provided; of 417 attending the three years' course in 1896-97, 378 were between the age of 16 and 20.† In Paris, both at the École Superieure and at the École des Hautes Études, the proper course is of two years' duration, while in each case there is a preparatory course of one year's duration. In both the minimum age for admission to the first year of study proper is fixed at 16; but in order to encourage the completion of the full term at the higher grade secondary schools, those who have obtained the baccalauréat, *e.g.*, have completed their studies at a *lycée*, can at once take the examination giving admission to the first year's course, and bacheliers have a start of sixty marks, or 10 per cent. on the total given in the examination. M. Grelley informed me a large proportion of his boys did possess the baccalauréat, and the average age of entry at the school of higher studies is between 19 and 20. The entrance examination for the first year of study consists of papers or oral tests in arithmetic, algebra and geometry, physics, chemistry, history, geography, composition in French and in one foreign language. The preparatory course naturally covers the ground for this examination. At Antwerp there is also a two years' course with a preparatory one year in addition; but more subjects are studied during this preparatory year than in Paris. Two foreign languages appear in the list as well as bookkeeping, law and political economy, and these are all included in the examination § for admission to the first year. Students at Antwerp are not usually admitted below 17.

Sec. 5.—Numbers of Students Attending.

The two Paris schools had in 1896-97 352 pupils in attendance, of which the school of Higher Commercial Studies had far the larger share, viz., 246; Neuchâtel had 168, Prague 417 in the three years' course, and 39 in the superior course of one year; at Antwerp the average has exceeded 200 since 1891 ‖; thus making roughly a total in all of 1,200 for five schools. Comparative statistics showing the careers pursued by the students, after leaving the school, and how far they are actually engaged in commerce are not very easy to obtain. Sir Bernhard Samuelson in his Presidential Address to the Association of

* "L'Enseignement Commercial en Suisse," p. 218.

† See Einundvierzigster Jahres-bericht über die Prager Handelsakademie, 1897. The organisation of the akademie at Vienna is the same, the number of students being larger—about 650.

‡ Chamber of Commerce Memorial, 1984, p. 69, 102, 121.

§ The examination is excused for those who have a diploma in an athenée du royaume or have reached prima in a German gymnasium.

‖ L'Enseignement Industriel en Belgique, 1897, p. 329.

Technical Institutions last January said: "Institutions like the London School of Economics or the École des Hautes Études Commerciales at Paris are no doubt of the greatest value for training members of the Consular service, actuaries and heads of great financial houses, but they have little bearing on the rough-and-ready processes of industrial and commercial life." As throughout this paper, I only wish to state the facts, so far as they are ascertainable; and the facts here do not seem to bear out Sir Bernhard Samuelson's statement.

The École des Hautes Études referred to has recently made a list of the students for the thirteen years, 1881 to 1895, who have taken a full course and passed out of the school, amounting to 1,150 in all. Of these:—

I. 1,083 have gone into commerce, their number being made up as follows:—

Business	368
Commission agency	93
Manufactories	506
Banks	86
Insurance	19
Railways	9
Agriculture...	2

The large totals for "business" and "manufactories" indicates that *not* all the pupils so engaged can be heads of houses as Sir Bernhard Samuelson suggests.

II. 43 only have taken to Government employment, made up as follows:—

Consulates, etc.	15
Ministerial offices	10
Bar and Magistracies	7
Commercial teaching	8
Sworn interpreters	2
Army	1

Three are without profession, twenty-one have died, or cannot be traced, thus making up the total 1,150. I give only one instance, and leave the figures to speak for themselves: but the experience of the other higher colleges is of a similar character. Even where, as at Antwerp or Venice, there is a special Consular course, the far larger proportion of pupils do go direct into business of some kind, and not into Government employment.

Sec. 6.—Subjects Taught.

On this point, which has given rise to animated discussions in England, there is singular unanimity abroad. Methods vary, of course: the hours allotted to different subjects are not the same in each school, but on the whole the programmes of the schools are more uniform than anything else about them. We may divide our foreign subjects of instruction into two classes: (A) those which are taught in England, but not so well, or not as portions of a connected plan: and, (B) those which are not taught in England at present at all.* In the former class there are several groups: 1. *The Modern Language Group.* There is a pretty general consensus of opinion that modern language teaching in our secondary schools leaves much to seek; I have heard the same complaint abroad; and even granted that the secondary schools attain a satisfactory standard, there is still work for the commercial college to do. Intimate knowledge and appreciation of Heine or Victor Hugo may, and should, be acquired in a general secondary school, but that will not enable a boy to understand French or German commercial terms or write a business letter in either language. At Antwerp, four modern languages are taught, viz.: English, German, Italian and Spanish, three hours a

* A complete set of the programmes of all the schools named, and of many others, are in the writer's possession, and can be seen at the London Chamber of Commerce. (See list at the end of this paper.)

week being devoted to each. The entrance examination assures a general knowledge of all these languages; and the foreign language lessons are devoted entirely, at any rate in the second year, to the study of the commercial terms, machinery, and even law of the country in question. At the French schools two languages are obligatory. At Venice, either French, English or German, may be taken. Here, in contradistinction to the Antwerp method of utilising the hours devoted to foreign languages to impart commercial knowledge, exercise in foreign languages is given in the courses of practical accountancy and business routine.

That the method of teaching is conversational goes without saying: it is vivid, answering to the needs of business whether in writing or speech. At Neuchâtel ease and fluency are secured by a system of *conférénce* or public speeches. These are of ten minutes' duration in the first year, and of half-an-hour in the second; preparation is allowed in the subjects selected, but the speech must be delivered without notes and before the rest of the class. In the third year the student of 18 or 19, who is just leaving the school, has a subject given him six months in advance; in a case which came under my notice it was Adam Smith. Every assistance is given to the student in the way of authorities on which to draw, and the result is a very creditable essay in English, which defies reproach, on the Father of Political Economy. The essay has been examined and approved both for matter and for style; and now the budding trader must unburden his soul for an hour to his friends and fellow pupils assembled much as on a prize-day at an English public school. He stands up a typical 'froggy,' weedy, hirsute, and physically an object of contempt to every right-thinking English boy, but voluble and determined, and delivers, without note, an intelligent lecture enough of an hour's duration, in fluent English, though he has never been out of his own country. The writer has an original essay on Adam Smith in his possession, together with many others, to show there was nothing unique about the performance.

2. Practical knowledge of business methods is insisted on. Under this head would come Accountancy, including therein full knowledge of foreign weights and measures and foreign money, together with rapid methods of conversion from one to the other; while knowledge of the ordinary routine of a business house, ordering and selling goods, shipment, payment by bill, &c., are taught at Antwerp, Venice and Neuchâtel by means of a business bureau.* In one school I saw accountancy and business routine combined; a small class of boys were representing a British house of business: one boy was acting as correspondence clerk, another making purchases on behalf of his firm, two or three others keeping the regular books, the journal, the ledger, and so on. They represented an English house, so they kept all these accounts in English weights and measures and in English money, and they found their prices current in the current number of the *Economist*. They entered into business relations for buying and selling with other similar classes; but this was not playing at business, everything was done under the supervision of a teacher with adequate business experience, who furthermore usually gave his instruction in English.

The necessity of insisting on the Accountancy and Business Courses as a "hauptfach," a primary subject, in order to secure a practical atmosphere, is strongly felt; at Neuchâtel the course occupies nine to twelve hours weekly; at Antwerp the work of the bureau engrosses three hours every day.†

3. Science is also pressed into the service; and lessons in chemistry, physics and geology, so far as applicable to commerce, usually find a place; the former is of special use both in the analysis of raw products and in the inspection and comparison of silks and manufactured stuffs.

* These bureaux are not to be confused with the spurious counting-houses common in American Commercial Schools and imitated at the Maison Pigier in Paris; the object of these bureaux is the understanding of the processes of business, not the slavish reproduction of office furniture.

† A full account of the Antwerp "bureau" and its working will be found in a paper shortly to be published in the Education Department's reports. The Neuchâtel system is fully described in the Swiss Memorandum referred to, at p. 229.

4. Economics and allied subjects; *e.g.*, geography and history in connection with commerce; statistics; commercial and maritime legislation, customs legislation, international and industrial law, all these deservedly receive attention in most of the programmes mentioned.

With regard to Head B (subjects not taught in England) perhaps the chief is 1. what is known in Germany as Warenkende, the science of commodities, mineral, animal and vegetable, involving a description of their place and method of growth, their use in manufacture or exchange, and the markets where they are most in demand. The British Consular reports should constitute a veritable mine of information on such a subject. 2. Another subject successfully taught in several schools, *e.g.*, "École des Hautes Études," is transport by sea and rail, its facilities and cost. 3. At Antwerp a course on shipbuilding and fitting out of ships, together with some account of Lloyds, and the corresponding French Veritas, appears in the third year, and is also in vogue elsewhere.

Finally, there are educational methods and instruments such as visits to factories and docks, travelling scholarships to send students abroad, collections of mercantile products in museums attached to the school, and also of all the documents, invoices, bills, etc., in regular use in commerce which are employed to a greater or less extent in most of the best schools. The visits to factories have been given up in some schools as degenerating into mere pic-nics; they appear to be successful only on condition the class is small and well prepared for the visit beforehand.

Sec. 7.—Organization of the Schools.

It is rather surprising to find that even in countries like Germany and France, where education is a function of Government, all the commercial schools owe their initiation to the private enterprise of merchants, and are still, with some addition of State control, managed by Chambers of Commerce or bodies of merchants. The "École Supérieure" in Paris was started in 1820 by two merchants; in 1869 it was taken over by the Paris Chamber of Commerce, in whose hands it has since remained; in 1881 the Paris Chamber itself founded the "École des Hautes Études," on a fine site in the Boulevard Malesherbes. Both are recognised by the State, and to secure this recognition and the doubtful privilege of exemption from two out of three years' service for four-fifths of their graduates, the schools must submit their rules and programme to the State Department of Commerce; but otherwise the management of the Chamber is unfettered. At Antwerp the governing body consists of the Burgomaster as President, four active merchants, the Judge of the Tribunal of Commerce, and an average stater who is a member of the Common Council. The Commercial Council initiated the school at Prague. As already stated, it is the Brunswick and Leipsic Chambers of Commerce that have taken the chief lead in the initiation of the new movement for the highest grade of schools in Germany.

The Neuchâtel School owes its birth to patriotic enterprise of a private banker, M. Junod, who for the first two years found the necessary funds for its maintenance. He is still the President of the Council, which consists of eight merchants (the famous M. Suchard, of Chocolat-Suchard fame, being Vice-President), a doctor and an advocate. On my remarking to M. Gaille, the Director, that there was not a schoolmaster among them, the smiling answer was, that pedagogues and commercial education do not run well in double harness.

The fees paid at some of the schools strike one as high; at others as surprisingly low. At the "École des Hautes Études" the charge is £112 a year for boarders, and about half that for day boys who dine at the school. At the "École Supérieure" the charges are £80 and £40 respectively. At Antwerp, on the other hand, the general fee for instruction is £8 for the first year, £10 for the second, with various small additions. At Neuchâtel natives pay £5 for a year's teaching; strangers double this; in Venice the fees vary from about £7 10*s.* to £10. The reason of this variation is, of course, that the French schools have now no State

aid, the remission of two years' service being relied on to fill the class-rooms, and, with the high fees in vogue, keep the schools going.* I found the opinion not uncommon that this privilege was not likely to prove an unmixed blessing, and might drive into the schools loiterers who have no serious thoughts of a commercial career. The Antwerp Institute, on the other hand, can draw on the public purse; in 1894 the expenses amounted to £3,600; to this the State contributed £1,780, the town £592, and fees amounted to £1,680. At Neuchâtel the cost was, in 1895, £2,720; fees amounted to £920; the town contributed £834, the Canton £368, and the Confederation £600.

The two corollaries from this somewhat tedious financial statement are, first, that even where, as in Paris, the fees for commercial instruction are high, they will be readily paid if the instruction be good; secondly, the professors being picked men, require high salaries. The incomes in Switzerland of the ordinary teachers amounted in various ways to £400 or £500 a year, which, compared with professional incomes there, is high. At Antwerp, I am told, the higher professors receive the equivalent of £900 to £1,100 per annum, and being Government servants have a right to a pension as well. As to the training of the professors themselves, this is an object specially kept in view in the school at Venice (which has a separate five years' course for the future teachers), and in the new German higher colleges. I did not find that the teachers had had generally, even at Antwerp, any practical business experience before commencing teaching. In the Swiss schools, however, this seemed more common, and with the happiest results: for instance, M. Gaille had received a practical education first in a French high school of commerce, and then for some years in a bank.

Sec. 8.—Connection with the Business World.

Into the disputed question of the success or otherwise of the schools I cannot enter at length: there is no doubt that opinions do vary among merchants abroad as to the usefulness of the schools; and the masters not infrequently complain of the apathy they have to face; at the same time the existence of the schools themselves, the recourse had to them by thousands of students, the vast sums expended annually upon them, are facts which cannot be got over. The best efforts of German merchants, as well as educationalists, have been devoted for the last two or three years to extending the scope of this Commercial Education; the Municipality of Antwerp spends half its whole income on education, and a large share of that goes in commercial subjects. Presumably, the merchants of Antwerp, the commercial growth of whose town during recent years has been phenomenal, believe they can write for "value received" against such expenditure. My belief is, that when complaints are heard they are an indictment not of the existence of every commercial school, but of the methods of the particular one. If the school combines in due proportion sound theoretic instruction with practical application, it will possess the confidence of the business world. I cannot do better than finish this section with a quotation from a recent letter from M. Suchard, of Neuchâtel, where the school undoubtedly has achieved this combination:—

> "I believe commercial education, properly understood, is of great importance for young men about to enter business. It is of course understood that their general education must first be sound and sufficient to open to them fields other than those of Commerce. When this is acquired, it is necessary to give a special importance to the practical teaching of different branches of a commercial education. The field embraced by modern commercial and industrial activity is so vast, that it merits a special course of instruction. It is therefore to commerce that it is necessary to devote close attention in the school, without dissipating effort on other branches of less importance for our purpose. I think that the governing body of the school should be composed mainly of merchants, manufacturers, or bankers, who are still actively engaged in business, though room should be found for some experts in science. But the active energies of the school should always be directed towards actual business."

* There was formerly a small Government subsidy, which ceased last year.

M. Suchard does not approve of the university type of school, not because the standard will be too high, but because the strenuous application and discipline necessary can only be secured in a school.*

Conclusion.

Many points are, of course, still subjects of discussion abroad, but several main positions seem established beyond controversy, and can be of use to us in England:—

1. A sound secondary education on a general basis is a preliminary, and a necessary preliminary, to this specialised commercial instruction; the latter is only a coping stone, and a heavy one too, which cannot be safely imposed save on a main building well constructed. Entrance examinations, preliminary courses, or the requirement of a full term at a secondary school, conclusively indicate the line of foreign experience here.

2. The inherent difficulty of organization lies, as I said, in securing the right combination of theory and practice, the proper infusion of the business element into the realm of pedagogy, and this difficulty is likely to be peculiarly great in England to judge by previous experience. In the medical world the proper sphere of each branch appears to be satisfactorily ascertained, of University teaching and hospital application; but with regard to the Bar, there is still much difference of opinion: the Lord Chief Justice has only recently advocated a much more careful attention to reading and digesting the principles of law before attempting to practise it. In technical education it has been found that men of the best position, of University rank and experience in teaching, have not got the practical knowledge; and it is with regard to the teaching staff that the difficulty will first arise in commercial education. The late director of the college at Neuchâtel, I learned, had been promoted direct from that post to be director of the National Bank of Neuchâtel, which speaks volumes for the sympathy there existing between theory and practice, and to secure success it seems advisable that the teaching staff, or at any rate its heads, should be men of the highest attainments, fortified with some practical business experience in a bank or insurance office.

As a means to the same end, if foreign experience goes for anything, the council of the school should be mainly composed of active but well-informed business men; the control of every foreign school I have mentioned is carefully placed in such hands and not in those of schoolmasters; while as an almost necessary corollary of the last condition, the school ought to be entirely independent of any other educational institution. Dr. Eichmann, the Director of the Swiss Federal Department of Education, was most emphatic on this point; Dr. Eichmann pointed the moral by comparing the commercial school at Berne with that at Neuchâtel. In the former case, the commercial school is in the same building as the gymnasium, or classical, and real, or modern school; it has the same council, consisting mainly of professors, with the result that practical commercial subjects are neglected, and the school exercises no influence in the town. At Neuchâtel, on the contrary, the school is in a separate building, with, as I have said, a practical body of administrators; this was not always so, and since the entire separation of the commercial from the secondary school, the vitality of the former has greatly increased.

Nor is it sufficient that the teachers should have had some business experience, that the administration should be supervised by business men, and that the blighting influence of other educational ideals should be as far as possible removed; the atmosphere of practical commerce must circulate freely through the school, and for this purpose visiting boards of merchants identified with special subjects have been found of use in some schools. These attend from time to time the lectures in which they are interested—not of course with the object of lessening the teachers' authority by interfering at the time, but of making suggestions subsequently, and keeping the routine as up to date and

* This is mentioned as a difficulty in Dr. Raydt's memorial on the Leipsic school.

live as possible; while the masters, in their turn, should be allowed whenever possible full access to business houses, in order to observe the ever-shifting processes of commerce.

The London County Council, in conjunction with the Council of the City of London College, have recently put out a scheme for the adaptation of the City of London College to the needs of a higher commercial school. The Council are to be congratulated on their energy in the matter, and their attempt to realize the wants of London; but at the same time, if my general conclusions are right, the scheme will labour under certain serious defects. It will not be a separate teaching institution with ideals and an atmosphere of its own, and will probably lose in directness of aim on this account: it is general experience that adaptations of existing institutions to new ends start with a heavy handicap in educational matters as in everything else; neither the administrators nor the teachers of the old régime take kindly to new ideals with which they possibly have no sympathy, and which they may not be competent to appreciate or carry into practice. New wine must be put into new bottles. At the same time there are, no doubt, immediate advantages secured by this plan in the way of funds and buildings, and I wish the scheme the success it deserves.

Besides the authorities already quoted the following are in the writer's possession, or can be seen at the London Chamber of Commerce. Programmes of the following schools:—

GERMANY.—Wiener Handelsakademie (1898); Höhere Handelsschule, Aachen; Unterrichtsanstalt des kaufmännischen Vereins, Magdeburg (1898); Handelsakademie, Leipzig; Städtischen handelsschule, München (1897); Kaufmännischen fortbildungsschulen zu Berlin (1895); Hamburgh (1897); Bericht über die öffentliche Handelslehranstalt, Leipzig (1898); Oeffentliche Handelslehranstalt, Dresden (1898), Städtischen Handelsschule, Nuremberg (1897); also "Was Heisst Handles Akademie?" with contributions from various experts, Leipzig; Memorandum on the Handelshochschulen, by Dr. Böhmert, Dresden, 1897; Die Entwicklung des berlinischen Fortbildungs schulwesens, by Grunbach, Berlin, 1898. Copies of the periodical, Zeitschrift fur das Gesammte Kaufmännische Unterrichtswesen, and of the "Handles Akademie."

FRANCE.—Programmes of all the eleven "Écoles Supérieures" in France; Questionnaires pour les Examens de Sortie, "École Supérieure," Paris. Bulletin de l'Association philotechnique, Paris (1897). Programme École libre des sciences politiques, Paris (1898); École polytechnique, Paris (1896).

NEUCHÂTEL.—Réglements and programme of the École de commerce (1897). Skeleton lectures of professors at same school in Geography, Commercial Routine and Book-keeping; specimen conférénces at same school.

ANTWERP.—Discours prononcés à l'occasion de l'inauguration des nouveaux locaux.

SIR PHILIP MAGNUS, City and Guilds of London Institute, communicated the following Paper, prepared by Mr. Laurie Magnus, on "The German Ideal of Higher Commercial Education, as exemplified in the Leipzig Commercial College."

I visited Leipsic last month with a view of learning some particulars concerning the Commercial College, which, as the papers told me, had recently been opened in that prosperous Saxon centre. My first efforts were directed towards discovering the whereabouts of the new Institution, and it seemed at first that my search would go unrewarded. The Institute had a name, but it had no local habitation; and it was not until, by the kind offices of an acquaintance, I had made my way to the President of the Leipsic Chamber of Commerce, that the facts of the case were made clear to me. Dr. Zweininger, the President of the Chamber, has warmly espoused the movement since it first took definite shape, and the success with which it has been crowned is very largely due to his exertions. He was careful to impress upon me from the beginning the modest character of this new experiment in Universities. The Leipsic Commercial College, Die Handelshochschule zu Leipsic, the first of its kind in the German Empire, is at present merely on its trial. It has no building of its own. It divides its time between the Leipsic University proper and the Public Middle School for Commerce, for which the city is also famous. Its classes are distributed between the hospitable rooms of these two institutions, and are held at hours which do not interfere

with the ordinary time table of either. It has similarly no teaching staff of its own. Professor Raydt, the Director of the Middle School, is Director of the College as well, and his efficient body of assistants seconds him ungrudgingly in voluntary service to the new undertaking. By mutual agreement between the Senate of Leipsic University and the Senate of the Commercial College, the students of the latter are admitted to the professorial lectures of the former, and the privilege is highly appreciated, so far as their schemes of study coincide. The financial features of the College wear an equally modest appearance. An initial outlay on house and *personnel* having thus been prudently avoided, the Chamber of Commerce was in a position to guarantee the expenses for the first two years. The students pay some small fees. The Saxon Government contributes an annual sum of £250 for this period, and the Municipality of Leipsic adds a further subvention of £150. All other questions are left until the preliminary two years have expired. The College exists on paper as an independent institution of university rank and university habits. But during its term of probation it may be said to be lying low. The decision as to the grant of a state diploma, the problem of the degree of "academic freedom" to be enjoyed, and the question of the statutory length of the vacations, over each of these the promoters of the College have written *solvitur ambulando*—time will show.

In striking contrast to this practical and praiseworthy reserve, is the hope which is entertained of the future development of the College. The hope is well-grounded on a careful consideration of the soil. I do not propose to occupy your time with an exhaustive account of the conception and embryology of the College. But from a mass of facts and pamphlets at my disposal, one or two salient points may be selected, partly in admiration of the thoroughness of German methods, partly in testimony to the significance of their results. The agitation for higher commercial instruction began as far back as 1894, when a Bill was sent up to the Parliament of the Rhine Province recommending the establishment of such an institution. It broke its force in vain against the opposition of the Prussian Agrarians, who saw in the Rhenish proposal an attempt to create an industrial proletariate, and to strengthen the cause of Socialism. "Political economy," said Baron Stumm, on June 1st, 1894, "is not a concrete science. A university training could only benefit a few great tradesmen. It would considerably injure the majority." The champions of the movement thereupon decided to take a *plébiscite* on the subject, and the *Deutscher Verband für das kaufmännische Unterrichtswesen* undertook to collect opinions. A circular of queries was sent out during the year 1896, to German merchants, tradesmen, trade associations, professors, schoolmasters and so forth, asking, in all, twelve searching questions as to the demand for a Commercial College, and the shape which such an institute should assume. The report was favourable to the scheme, and early in 1897 the Saxon Government was approached through the Leipsic Chamber of Commerce. When the Commercial Education Conference met in Leipsic, in June, 1897, the way had already been prepared, and the Charter granted at the beginning of this year by the Saxon Home Office could no longer be justly withheld.

It will be seen that the foundations of the College are deep, and it cannot be denied that its aims are high. They have the advantage of being in harmony with the tendency of affairs in the empire. The last few years have witnessed a marked development of the commercial idea in Germany. The gigantic progress of her export trade, the technological resources of her manufacturers at home, the carefully nursed successes of her mercantile steam-ship lines, her commercial base in Shantung, and its obvious connection with the evolution of the empire into a maritime power—all these causes are steadily combining to raise the status of the German tradesman, and to give him a prominent place in Germany's political life. This shifting standard is extremely interesting to watch, and its reaction upon the old position of the agricultural population gave the key-note to the electoral campaign through which the country has just passed. It is to the credit of the founders of the Leipsic Commercial College that they are a little in advance of their times. It is their ambition to train a generation of business men, intellectually and socially, as fully equipped

as any "Herr Doctor" of conventional University life. It is not only, it is not primarily, designed for the benefit of trade itself. Indirectly, no doubt, the empire will gain when its commercial classes and consular profession are recruited by men of University stamp. But its chief aim is the ideal one of benefitting the recruits themselves. A business man hitherto has had the ordinary general school education up to his early teens. He has gone into the office or the workshop during his apprentice years, and he has had the chance of attending "continuation" classes in commercial subjects. Or a self-made man has risen from the ranks, and his native genius for amassing a fortune has turned the laugh against preconceived notions of the need for general culture. The Commercial College aims at altering all this. The future kings of business are to receive a University training. They are to learn to look at their work from a larger and more spacious point of view, first because the nation which is without ideals perishes, and secondly because they will thus be better qualified to fulfil the duties which await them in the coming century. Let me offer at this point an extract from the Director's inaugural address to his students. "The Commercial College," he said, "is not designed as a direct preparation for bread winning, such as commercial classes can give. It is to be a home of higher intellectual training, and its golden fruits will fall into your lap not directly, but indirectly. . . . The Commercial College will teach you to think clearly; it will train your mental powers, and will provide you with the ability to rise superior to the most difficult tasks and most critical situations. All this and much more is offered to you; but to give direct practical lessons in the requirements of your future calling—this we will not and cannot and shall not do. Above all, the Commercial College will never replace your years of apprenticeship to mercantile life. If, gentlemen, you have come to us straight from your higher studies, spend four terms at this college, you will then have to learn your practical business from the very beginning. No one can or shall release you from this obligation. Your time may be shortened by the fact of your residence here, in the same way as obtains in the military profession. But just as the highest officer has to learn every detail of his duties by practice, so the greatest tradesman must begin his career by a practical apprenticeship. The chief advantage which Commercial Colleges confer upon commerce and upon their country is to be sought in the necessity for them. This is founded on the fact that our times make greater demands upon men of business and industrial life than was formerly the case—demands which our schools are no longer able to fulfil." And Professor Raydt went on to specify the social and political problems which await solution in the approaching industrial century.

It would be rash to say that the elements of universal culture of a university training, in the most liberal sense, may not be imported into the educational programme for commercial life. There is a way of looking at commerce which raises it far above the material details of its practice. To a nation of idealists like the Germans, the present stage of development which their country has reached must be full of the possibilities of ennobling ideas. They are standing on the margin of an unknown future. Their flag has just been hoisted on the shores of the Yellow Sea. They have a body of white troops in permanent employment abroad, in their South-west African territories. The marvels of intercourse, the responsibilities of Empire, and the intoxicating sense of national expansion, are coming home to them with full force. With these factors to work with, it should be easy to impart such a training that the clerk at his ledger in Berlin should feel his pen throbbing to the ends of the earth, and should discover a relation in time and space between his columns of addition and the "light and sweetness" of the whole of life. Between Seeley's view of the 18th century, as it is given in the "*Expansion of England*," and the "mechanical view," with its vision of "distressing commonness and flatness in men and affairs," which his book was written to correct, there lies the gulf which the Leipsic Commercial College has been founded to bridge for the trustees of the expansion of Germany. It is a noble aim, worthy of German ideals, and it will be interesting to see how far it is realized by the promoters of the Leipsic scheme.

Let me conclude this review of motives with a few essential facts. The College was opened on April 25th of this year, in the Aula of Leipsic University. It is governed by a Senate of ten members, exclusive of the Director of Studies. The Saxon Government and the City of Leipsic send one representative each. The Chamber of Commerce sends its president and three members; the university is represented by two professors; and two teachers from the staff of the Public Middle School of Commerce complete the roll. The Senate selects the president of the College for a period of two years, and his election is confirmed by the King of Saxony. There is no entrance examination. The College is open, first, to young business men who have obtained their certificate for the one year's military service, and have spent at least three years in a merchant's office. As the military certificate is granted to boys out of "Unter-Secunda" in the secondary schools, this condition of three years' apprenticeship is designed to correspond to the remaining three classes in the schools. Such candidates for admission, however, must satisfy the Director of Studies as to their level of general acquirements. It is open, next, to Abiturients from the nine-year secondary schools (gymnasien, real-gymnasien and oberreal gymnasien), and to those from higher commercial schools of an equivalent grade. Trained teachers are admitted on certain conditions, and a department of the College has been organised for the special training of masters in commercial schools. Lastly, the matriculation is open to foreigners who have attained their 20th birthday, and have received a corresponding education. No Englishman, as yet, has taken advantage of this privilege. It is interesting to note how the ninety-five students who have already matriculated are distributed under these categories. They range in age from eighteen to forty-six, the biggest number, twenty-two, falling to those of nineteen years of age. Seventy-five are Germans and twenty are foreigners. Their previous history is as follows: forty-one out of the ninety-five, or nearly 50 per cent., belong to the class of young business men who left school at sixteen, and have since spent some years at the desk. Twenty are professional teachers. Seventeen come from the various gymnasien, and ten from the higher schools of commerce. Three are described as students, one as a craftsman, one as an apothecary and two as officers. The students' lecture-fees are small; they represent in the treasury of the College an average of four marks an hour, each term.

Finally, as to what is taught to these makers of Germany's commercial greatness. I have tried very briefly to point out the ideal at which the College aims, and it is obvious that its success will depend upon the degree of universal culture which the lecture plan is constructed to impart. So far as the instruction given is calculated to widen the student's mind and to help him to grasp the whole of the system, to a part of which he will subsequently be apprenticed, thus far it is in harmony with the ideal. But so far as it is used for the direct material furtherance of the student's future career, it must be regarded as a decline from the ideal; and the Leipsic Commercial College will sink from its pretensions to university dignity to the every-day level of an ordinary specialist high school. The scheme of study, based on a course of four semesters, comprises Jurisprudence and Political Economy (including social legislation, currency, maritime and exchange law), Commercial Politics, statistics and insurance; further, Commercial History and Geography, to be taught as much by organised conversation as by lectures; technology and wares, varied by visits to well-known establishments; Colonial Policy, foreign languages and lectures on general subjects. Practical exercises in book-keeping, correspondence and so forth, are combined with the classes in those branches. It will perhaps be clearer if I reproduce the time-table which has been recommended for the guidance of students for the present summer term. It must be remembered, however, that this is the first of the four semesters, and that the "humanities" branches will probably be developed as the course wears to an end. In a week of six days the hours are distributed as follows:—

Universal Political Economy	6 hours.
Industrial Politics	3 „
Trade and Intercourse in Politics	2 „
Commercial Arithmetic	4 „

Chemical Technology	2 hours.
Counting-house Work, Correspondence	3 „
Book-keeping	3 „
Insurance Mathematics	3 „
Practical Aspects of Scientific Thought	2 „
Technology of Textiles Industry	2 „
Introduction to the study of Statistics	2 „
German Colonial Politics	2 „
History of the Age of Discoveries	1 „
Geography and Colonisation of German East Africa ...	1 „
Commercial, Exchange, and Maritime Law	4 „
Universal History of Modern Times	4 „
Landscapes and Cities of Central Europe	1 „

NOTES by SIR PHILIP MAGNUS:—

The foregoing account of the initial efforts of Germany to found a Commercial College of University rank may prove, I think, of some practical usefulness to us at the present time, when we are contemplating the establishment of a similar institution in London. You may have heard that the City Parochial Trustees have offered to the City of London College a grant of £500 a year, provided the governing body will organize such a school; and this contribution is likely to be largely supplemented by the Technical Education Board of the London County Council. If a High School of Commerce is to be established in England, the experiment should certainly be first tried in London. It will be seen that the Germans have very carefully considered the problem of Higher Commercial Education before entering upon this new departure. Out of the 301 answers received to the questions addressed to merchants and others, 249 were unconditionally in favour of the proposal, and only 41 were opposed to it. It will also be seen that the Germans have very clearly defined the aim and purpose of their new college, and the results they expect to secure, and these differ in many essential particulars from those of the French and Belgian schools. It is indeed interesting to note that, with the experience of all continental schools before them, the Germans have decided not to reproduce at Leipzig a school similar to the Antwerp Academy or the *École des Hautes Études* of Paris. Their ideal of a High School of Commerce corresponds much more nearly with the ideal they have had in the establishment and organization of their High Schools of Technical Science.

With the exception of the school at Neuchatel, I have had the opportunity, at different times, of visiting the principal Commercial Schools in Europe, and I am impressed with the marked contrast between the aims of the Leipzig College, as set forth in the paper I have read to you, and those of other well-known Commercial High Schools. Both in Antwerp and in Paris the attempt is made to completely equip the student with the knowledge and practice he requires for commercial work. The instruction is all directed toward this end. The aim of the school is not so much to educate the youth with a view to his future calling, as to inform him on those subjects which it is thought may be of direct benefit to him. The utilitarian side of the training is brought prominently to the front. It is this strictly technical and narrow view of Commercial Education that has made English merchants sceptical as to its advantages. The German idea is different. It recognises that in commerce, as in engineering and in manufacturing industry, the complex conditions of the pursuit render it necessary that those who are to occupy the higher positions, should receive a training corresponding to a university education, whilst the subjects of instruction should have a distinct reference to the student's future career. The direct aim and object of the training, however, should be discipline, the improvement and development of the man, so as to enable him to better understand and control the circumstances and conditions in which he may have to work. It is not the purpose of the Leipsic College "to produce clerks" or commercial agents, but to give young men the training that will enable them to take full advantage of the experience acquired in the bureau or warehouse, and to apply it to the best commercial uses. The aim of the German School could not have been expressed more definitely than in the words of the Director: "The Commercial College will enable you to think clearly, it will train your mental powers, "and will render you competent to rise superior to the most difficult tasks and the most

" critical situations. All this and much more is offered to you ; but to give direct practical " lessons in the requirements of your future calling—this we will not, and cannot, and shall " not do." In this statement is contained the essence of the difference between the aim of the Leipzig and that of the Antwerp and Paris School. It may be said that any University education would equally well answer the purpose the Leipzig authorities have in view. But this is not so. It is now generally recognised, that to be proficient in the higher developments of commerce, there is a body of well-organized knowledge to be acquired, and a distinct line of study worth pursuing; and that, equally as in the different branches of Technology, there are special subjects of instruction through which this University training may be best obtained. One great advantage of the establishment of a High School of Commerce is the recognition of Commerce as a subject capable of being treated educationally from the same high standpoint as Medicine or Law. As you know, our first Universities were Technical or Professional Schools, and it is only recently, and even now not generally, that Engineering has been treated as a subject of University rank. Commerce is the latest claimant for this high distinction. Socially, the recognition of Commerce as a branch of University Education is of considerable importance in Germany, where class distinctions are more pronounced than in this country. But here, too, the widening of the University idea to include studies of special value in a commercial career, cannot be without influence in attracting to its pursuit men of the highest intellectual capacity, and in determining the curriculum of secondary schools. In many of the higher Technical Institutes of Italy, which correspond to some extent with our Central Technical College in London, Commerce is one of the Faculties in which a student can graduate. It seems to me, therefore, that so long as we keep this idea before us, and endeavour to steer our students through a course of instruction that shall train their intelligence by means of exercises useful in a commercial career, we shall gradually win for such studies the necessary recognition, and shall avoid raising expectations that are not likely to be realized.

I hold in my hands a sheaf of extracts from our consular reports, repeating the tale we have so often heard, that in all parts of the world, except perhaps in our own Colonies, foreign agents are succeeding, by their knowledge of foreign languages, of their customers' requirements, and of other technical details, in driving British goods out of the market, and in replacing them by home manufactures. But, in nearly all cases, the travellers referred to are not French nor Belgians, but Germans. Yet, hitherto, there has been no high school of commerce in Germany similar to the well-known academies of Paris and Antwerp. It would seem, therefore, that the conditions of trade have changed to induce the Germans to advocate this new departure. Hitherto, the Germans have relied upon their general system of secondary education to produce thoughtful, competent and resourceful men of business. But now they feel that more is required. Changes have undoubtedly occurred. Competition has become still keener, and commercial relations with distant countries have been extended. Germany, sees, therefore, the need of fresh educational efforts.

This, then, is the lesson we may learn from the opening of the Leipsic College. In all branches of professional and manufacturing work, it has been found necessary to provide a special and appropriate training for those who are to occupy the position of officers in the industrial army. Commerce forms no exception to this law. The opening of the first commercial high school in Germany is almost contemporaneous with the recent extension of her empire beyond the seas. We in this country cannot afford to lose any possible advantage that education may be able to confer on trade. The reasons that have induced the Germans to make this new advance apply with still greater force to the conditions of our own commerce. It cannot be said that our commercial practice or experience is superior to theirs. If we have not been losing, as some contend, we certainly have not been gaining ground in the competition for trade. We may do worse, therefore, than follow Germany in her recent educational departure. The establishment of a high school of commerce in this country may be regarded as an experiment, but it is one we are bound to try; and it is to be hoped that the high ideal of commercial education which underlies the scheme of the Leipsic College may help us in determining what should be our aim and purpose in establishing in London—the greatest commercial centre of the world—a school of commerce, not unworthy, perhaps, to find a place in the new University to be, one day, ours.

DISCUSSION.

Mr. P. E. J. Hemelryk (Liverpool Chamber of Commerce): Mr. Chairman and Gentlemen, when I sent my card up this morning I had not read all these splendid reports and papers to which I have been listening since, but I should be failing, I think, in my duty as a delegate, as one of the Vice-Chairmen of the Liverpool Chamber of Commerce, and as the President of the new School of Commerce which we are trying to establish in Liverpool, if I did not venture just to say one or two words. I will try to be as short as I can. I have been listening carefully the whole morning to any number of professors and any number of professional men, and I have listened to one or two commercial men, but I have not heard a single case—if I may take my own case—of a man who has gone through the training of a commercial college on the Continent. I think, if I may venture to give the experience of that college and its results to myself and to those who were at the same college with me, it might, perhaps, be of some advantage to this meeting. (Hear, hear.) We want practical results, we business men. We want to know, if we are going to establish Schools of Commerce in England, that they will be of so much benefit to the English nation at large that we shall not require those wretched foreigners any longer. (Laughter.) Being a foreigner myself, and *only* naturalized 37 years ago (laughter), I think I may speak both as a foreigner and as an Englishman. (Hear, hear.) The school in which I was educated was in Holland, and poor Holland has not been mentioned at all in these discussions, and also Belgium; and when my school mates and myself left school we, every one of us, spoke fluently four languages to begin with. (Hear, hear.) We had had in our commercial school the training of a higher arithmetic, of algebra, chemistry, political economy and international commercial law. But the last years of that commercial education were the best; we were taught, gentlemen, practical commercial operations, and we were instructed by practical men and not schoolmasters. (Laughter and cheers.) We had men who had not been most successful in business, but who had gone through a varied experience as traders, importers, exporters, insurance brokers, shipowners, &c., and they were only too happy to give the benefit of their long and painful experience to a number of young students, and to give it in a practical way. We were told on the Monday morning, "Jones, you are a sugar planter in Cuba; Smith, you are a shipowner in Liverpool; Robinson, you are an importer in Liverpool; Williamson, you are a refiner in Liverpool. Now then, Jones, your sugar costs you so much; you pay so much for your barrels, and the rate of exchange on London is so much; offer your sugar to Liverpool. You, Robinson, in Liverpool, you see what the price of sugar is in Liverpool, and make a bid to Jones in proportion to the price at which you can afford to sell it. Jones and Smith, make up your invoices, your freight notes, and your bills of lading." We went through the whole technical operation of the sugar transaction, taking it from its inception at the moment of its production to the moment of its final consumption, and when for a whole month this young fellow had been a sugar producer, and had been told all the ins and outs of what was connected with his business, he was turned the next month into a cotton importer or into a sugar refiner (laughter). Gentlemen, laugh; but it was the practical knowledge brought home. (Cheers.) None of your professors are men of business. You cannot say (and correct us if we are wrong), as we had said to us, "Now then, Jones, that sugar costs so many pesetas in Cuba, and sells at 9*s.* 6*d.* per cwt. in Liverpool, can you make a profit; yes or no? Then the master would continue, and say: "Go to your London banker and ask him to open you a credit, and let him charge you a commission and make up your account, etc." The whole of that business for two years, in a superior commercial class to which I belonged, was conducted on those principles. Now for the result. I will not name myself, but one very intimately connected with me had the chance, and was ordered by a Dutch house at the age of 21½ years old to go to England, and with his knowledge of four languages, and with the experience and teaching of that commercial school, he was given at the age of 21½ the representation of a very old-established Dutch house, and at 22 he had already twenty clerks under him, every one older than himself, of various nationalities and of various occupations—bookkeepers, invoice clerks, account sales and correspondence clerks—and he was able by his commercial training and commercial teaching to tell every one of those men how to go about his duty. (Loud cheers.) That is, gentlemen,

in my opinion, what we now should try to establish in Liverpool. We are trying in a small way to teach the students elementary French, German and Spanish; then if they do know sufficient French, German or Spanish, we shall provide for them special commercial classes conducted in English, French, German and Spanish, and that by commercial men. One speaker spoke of the leading managers of London firms and Liverpool and Manchester firms who are quite able to give that teaching. That is what I would like to bring before this meeting, namely, to get those men to teach the practical part of commerce. (Hear, hear.) It is very often true what Sir Philip Magnus said about Germany. We have to compete with these German houses, with their training at commercial colleges, or elsewhere, in the City of London, the City of Liverpool, and the City of Manchester, and all our great dependencies—in Australia, in India and elsewhere. Many of them are at the head of the commerce of the place, and it is that particular training which you, gentlemen, under the advocacy and able guidance of your President, wish to establish, which shall put English houses at the top. It has my hearty support, because there is no doubt about its final result. Give the boys up to the age of 15 or 16 a classical education, let them know something of foreign languages; but let them from the age of 16 entirely devote themselves to foreign languages, and remain at school until they are 19. It is those last three years of a boy's education that are the most valuable. (Cheers.) I have given you an example of one closely allied to me. I could name thousands who have had the same education, and who have at once stepped into positions worth £300, £400 and £500 a year. (Cheers.)

Prof. Julius Wertheimer, B.Sc., B.A. F.I.C., F.C.S. (Principal, Merchant Venturers, Technical College, Bristol): Mr. Chairman and Gentlemen, there are two or three points which I should like to lay before you. In the first place, one that I believe has not yet been touched upon—the financial aspect of the questions which we have been discussing. The results that have been obtained in foreign countries have not been got without an expenditure of money which, so far, we in this country have not been at all disposed to face, and I, therefore, desire to impress upon this Meeting the importance of clearly facing the fact that, if we are to attempt to compete satisfactorily with Germany and other nations, it is absolutely necessary that larger sums than have hitherto been devoted to the purpose shall be put at the disposal of those who are to undertake this important work. No such measure as that, for instance, which is at present before the House of Commons—a private Bill which proposes to take a portion of what is felt in many of the boroughs to be an inadequate amount devoted to technical education, and divide it between technical education and commercial and secondary education—will be at all adequate to deal with this matter. What we want is not to split up the small amount that Parliament already provides, but rather to provide additions to the funds. Secondly, I have not yet heard anyone mention the very important machinery which is used in the country from which the last speaker came, and in Germany and in Austria, and in many other countries, for the purpose of developing commercial education—I mean the Commercial Museum. As far as I know there is not in England at present anything that at all—I say it with all due respect to the Imperial Institute—anything that at all deserves the name of a Commercial Museum as it is known on the Continent. A Commercial Museum on the Continent is a place where the manufacturer can go and not merely see the best products of his own country, but can more especially see those products of other countries which are ousting the products of the home country. Such a museum ought to exist in every commercial centre, and a magnificent Commercial Museum of this kind ought to exist in this great City of London. (Cheers.) A third great point to which I should like to draw your attention is the fact that this country provides nothing of the kind that our French neighbours have in the shape of Commercial Bursaries, which are provided by the French Government. In the Boys' School of the Technical College at Bristol we receive each year one or two young men about 16 years of age, who are sent over by the French Government, whose fees are paid, whose board and lodgings are paid, and who remain for a year in the Commercial Department of that Institution. At the end of the year they enter for another year, as volunteers, some house of business in England, and at the end of that time they return to their country. There are twenty-four such bursaries under the Minister of Public Instruction; twelve are

sent out to some German-speaking country, and twelve to England. That is not a large number—only twenty-four in each year—but I am very sure that those twenty-four young men, returning each year with some knowledge of the commerce of foreign countries, must help the French nation to compete with us more satisfactorily than they otherwise would be able to do. One point more before I resume my seat. Allusion has been made to the City which I have to a slight extent the honour of representing, in a manner which would make you think the West of England is in a particularly benighted position with regard to the views its commercial men maintain. My experience does not coincide with that of a former speaker. In the West of England you can find a considerable amount of appreciation of good training, and the outlook is not nearly so pessimistic as one might be led to believe. (Cheers.)

Mr. J. W. Willans (Vice-President, Leeds Chamber of Commerce): Mr. Chairman and Gentlemen, I confess that one of the most suggestive utterances we have listened to to-day was in the concluding observations of Sir Philip Magnus, who addressed us a few minutes ago, that in nearly all cases the travellers referred to are not French or Belgians, but Germans, and yet, hitherto, there has been no High School of Commerce in Germany similar to the well-known academies of Paris. It seems to me that that helps to bring us back to the sort of bed-rock from which we started this morning. The fact is, I think, that too little consideration is given to distinctions of character and national capacity in our various discussions upon this question. Now, there can be no doubt whatever that without any vanity—my remarks are sufficiently wide to exclude vanity—the English, the Germans, and the Dutch nations, are conspicuously the commercial people of the world. They have the natural adaptation to commerce, they have those special qualities of character which fit men for the commercial contest, as they do for some other different contests with the nations of the world, and I suppose, of course, we must include our American friends. What we have to start with, I think, is this: Given fifty men, or fifty boys or young men, whether German, or English, or Dutch, or what you like—given, say, fifty men of equal capacity, of very much the same natural characteristics, the same capacity for getting on—and I want to ask if you give twenty-five of those men a mere ordinary training, and allow them to be brought up in the haphazard way of an ordinary education, and if you give to the other twenty-five a specially adapted, and skilfully adapted, training, which of those two twenty-fives are the men who are going to succeed in life? There you have the touchstone of our technical and commercial education. The question is, what instruments are we going to put in the hands of those who are going forth to the battle of life? That is the whole question of our commercial and technical education. Of course, there is room for great variety, and if you put the same instruments into different hands they will be used very differently. But it is no use attempting to put into one set of hands the instruments which are only properly adapted to the other set of hands, and you can have no universal system of either technical education or of commercial education, which would be adapted to all the boys of all the countries in the various conditions, some of them rising from the lower strata, some beginning high up in the social scale. (Hear, hear.) We have had the difficulty pointed out this morning: you take in boys, as a rule, to begin (and they must begin) at the lowest duties of the office, and must rise from that position; and there comes in this great variety of character. It is what my friend, Mr. Albert Spicer, said this morning—that after two or three years the boys of the secondary education will forge more ahead; but there, again, you have the differences of character, and you must have your education so adapted that these boys shall all come, if they like, if they are qualified for it, with instruments fitted for going forward in their commercial work. I had the advantage of being in a German Realschule a good many years ago, and I had part of my training there. I went there from a very good English school, or college as it was called, and had had the ordinary advantages of a middle-class education. On the three-quarters of a year I spent at that school I can only look back with great gratitude, for I think I learned more in the nine months I was in the German school than I had learned in any two years I was in the English school. The subjects which were taught were very much the same as in our own country, except that languages were a more regular course of teaching. We had a good amount of English education, and a certain number of hours every

week of French education at that school. As to arithmetic, somebody was comparing—I think it was Mr. Yoxall—our systems of weights and measures with those in foreign countries. Those were the days in Germany when they had a system of weights and measures and money pretty nearly as complicated as our own. I remember very well there was this good commercial feature there, that a large proportion of our arithmetical education consisted in the practical sums of commercial transactions, and of the exchanges between one country and another. That just leads me to another thing that struck me two or three times to-day. It is not merely the boy that you have, it is not merely the system that you have, but a great deal depends on the teacher that you have. I am not going to make any reflection upon the teachers of the present day. We have had an advantage of hearing very excellent observations from a great number of professional gentlemen here, but I do say that at that time the German teachers were, unfortunately, superior to the English teachers, and especially in the very large and happy quality, and the very useful quality in a teacher, the quality of imagination. Each study was made so much more interesting than I had been accustomed to have it made in the English school. The same thing struck me with regard to languages two or three years ago in Canada. Somebody said this morning that we must teach through the ear, and somebody else said through the eye. In Canada I attended a lesson in which French was being taught to the boys in one of the common schools. The master taught both with ear and eye. Every word and every sentence to be learnt he illustrated by some very simple action with a book or paper he had in his hand; and it struck me, the half-hour I was there, that those boys got more instruction in French, more valuable instruction, than in an ordinary college school, so far as I have seen, a boy would get in a couple of hours. Then, sir, there is another illustration. I attended in Switzerland not very long ago a commercial class in one of the higher common schools. The head-master had a class of only six or seven boys, and he was teaching those boys to write a German business letter. It dealt with an ordinary transaction. He told them what they had to communicate, and they had to write the letter. That man went through every letter individually in the presence of the whole class, and spent three-quarters of an hour on a letter of, perhaps, eight or ten lines, and he did it with the thoroughness which our friend referred to this morning, and it seemed to me he gave there very much what our friend from Liverpool was speaking of just now, an illustration of practical teaching which is very valuable. If we could, in the commercial colleges we are talking of establishing, combine the theoretical with the practical, as they do in some of the agricultural colleges, for instance, in Canada, we should do very much towards making up the deficiencies which we undoubtedly suffer in our competition with those who are just as good men to start with as we are ourselves or pretty nearly so—we will not say quite!—and who have better instruments in their hands, and very often beat us in the conflicts of business life. (Cheers.)

Dr. R. P. Scott (Headmaster of Parmiter's School): Mr. Chairman and Gentlemen, there is one particular point on which I should like to break a lance with Mr. Barlow. He has said that the schoolmasters and merchants do not run well in double harness. Now, I think that when both schoolmasters and merchants are reasonable men there is not much doubt they will run well in double harness. (Hear, hear.) That at any rate is my experience. But if you are to run comfortably in double harness you must be clear beforehand about the course which lies before you. Until we get definitions, until we have some fairly definite idea of what is meant by secondary education, what is meant by technical, and what is meant by commercial, how can we run in double harness at all? The immediate necessity is, so far as I can gather from the feeling of this meeting, to enlist in the service of education an amount of clear thinking, which at the present time is not to be found. We have had, however, before us to-day one point on which there seems to be general agreement. There seems agreement that it is possible to have a modern education drawn entirely on modern lines, out of which can be got the same discipline of mind, and the same discipline of conduct that can be got out of the old classical languages. (Hear, hear.) They have found that true in Germany, and I am convinced we can find it true in England, if only we can set ourselves to work out the different types of secondary education that this nation should have at its command. But in order to bring this matter to a practical issue

we want a great deal more even than clear thinking; we want organised action. I should like to say how exceedingly delighted I have been at the opinions generally expressed by the members of this Conference, because I perceive in it a great many people who think they are fighting on opposite sides, but who are really at one. (Hear, hear.) One thing schoolmasters have had to urge very strongly of late is that there should be no specialization before the age of 16, and so far as I can gather the feeling of this meeting, it is in entire agreement with that view. (Hear, hear.) If, then, we can agree, first as to no specialization before that age, and, next, as we seem to have agreed already, on the need of thoroughness, and on the supreme importance of conduct, the requirement in fact of conduct, then, I think, Mr. Chairman, that the schoolmasters and the merchants are at one. But in order to put these things into practical use we need organization, we want some focussing of the experience, as, for instance, that which is represented here to-day. Where is it focussed? Where is the committee which will consider the points of detail and the principles which have been discussed here to-day? Where have our schoolmasters any opportunity of learning at first hand what merchants really want? Where is it arranged that the profession of schoolmaster and the profession of merchant should be in constant touch? That organization has yet to be devised, and if there is one thing that is needed at the present time more than another, it is that we should focus all the experiences which relate to education, whether theoretical or practical, into one great whole; so that the results of that experience, the principles on which action should be based, and the necessary practical details connected therewith, may be a possession common to us all. When that is done we shall find there is a great deal more agreement than disagreement. Schoolmasters will find that that for which they have laboured and which they have at heart, thoroughness and character, are thought well of by merchants in this city, and this meeting, in focussing that opinion, and in placing it in a definite form before the world as the outcome of its deliberations, has done something to uphold the spirit of the age, which is, I think, character and thoroughness of work, as against the spirit of the time, which is rather superficiality and a desire for immediate results. (Cheers.)

The Rt. Hon. Sir Bernhard Samuelson, Bart.: Mr. Chairman, Ladies and Gentlemen, I have very few words to say, and I hope that you will allow me to refer very briefly to one or two points in the papers which have not yet been read. I think that if anything were required to justify the existence of the London Chamber of Commerce, our meeting here to-day would be the best possible justification. (Hear, hear.) I believe that this Conference will lead to most important results, and perhaps the most important of those results will be—I hope I am not presumptuous in saying what I am about to say—the paper of Mr. Bourne, the Head-Master of King's College School, which has, once for all, put an end to the illusion that it is expedient to have special commercial education in secondary schools. He has expressed that very clearly, and has justified it so fully that I believe this illusion, at any rate, may be said from this day to have terminated. I would like to state that what you gather from his paper is also the opinion of the best informed authorities on the Continent. I have had put into my hands lately the Reports for 1896 and 1897 of the Hamburg Chamber of Commerce. You, sir, know well that the Hamburg Chamber of Commerce is composed of gentlemen of the highest standing in that great commercial city. You know that that city, connected as it is by commerce with every part of the world, is composed of men of the highest standing—composed of men eminent in banking circles, in commercial circles, and in manufacturing circles, and that its secretaries are men who are graduates of the first Universities of Germany. Well, sir, the opinion of these gentlemen expressed in those reports is clear, that the education of commercial men, of lawyers and of men who are intended to practise the medical art, should be conducted together on uniform lines until the age of 17 or 18. As has been well said here, the object of secondary education is not to teach people to be merchants or doctors, or lawyers, but to train them so that they may take their place intelligently in any of those professions. (Hear, hear). Well, sir, what applies to secondary education, I believe, also applies in a great measure to higher commercial education, and perhaps I may be allowed, with your permission, to refer to the paper of Mr. Hewins. I am very sorry that these papers have not been circulated before the meeting. They are, to use a vulgar expression, as full of information and

of important teaching as an egg is full of meat. I hope that when, in this Conference, they are circulated, they will lead to correspondence of the greatest possible value. Mr. Hewins in his paper tells us that the general character of the curriculum which he recommends works out as follows:—"Classes arranged as a two years' course of descriptive and theoretical economics, economic and commercial history, and statistics." Well, that is an education which will train a man for commerce, but it will also train him for politics and also train him for diplomacy. But then he goes on, and he says that when this course has been gone through, then specialization should take place, and that it should be followed by specialized courses of lectures and of classes, and that these special courses should be selected with the view of the trade or profession, or the subject in which the student requires special training. Now, sir, as much as I agree with him in the first part of what he proposes, so much do I differ from him in the second. I believe that commerce in these days is such a thing that no one can foresee, whether being a merchant to-day he may not be a banker to-morrow, and that, therefore, what we have to aim at is—as much in the higher schools as in the secondary schools—the training of a man's mind in order that he may be able to adapt himself to any circumstances to which he finds himself thrown. (Hear, hear.) If, in establishing the school which is proposed to be created in London, we confine ourselves as much to high general training as we do in our secondary schools to secondary general training, and if we leave afterwards the special training to the commercial or banking establishments into which the young men may be drafted, I believe we shall do a greater work for commerce than if we attempt to specialize our training even in this higher commercial school. This also is the opinion, I believe, of those best qualified to judge on the Continent. The Leipzig School, on which my friend Sir Philip Magnus has given us a paper, is a great experiment, an experiment well worthy of being tried. But it does not command the general sympathy on the Continent which, I believe, he attributes to it, or which, at any rate, might be supposed to arise from the answers which have been given to the circular which has been sent out. The opinion, I believe, of those whose opinion is best worth considering amongst the Germans is this: give a man the best general training that you can, carried on as far as his circumstances will admit, then send him into practical life, and there let him complete his commercial education. Now, sir, one word more, and that is with regard to modern language. I should be the last in the world to deny that it is necessary that our secondary schools should adopt, as a part of their course, tuition of the best kind in modern languages; but there also I think that practice is the best ultimate "finish," if I may use the word, of the education which a man intending to be a merchant or banker should receive. Let him be taught modern languages as well as it is possible to teach them in a school. When he has learned them in a school as far as it is possible, do not let him think he has completed his course of modern language. Let him do as the Germans do who come to England, let him go to Germany to learn German, and let him go to Spain to learn Spanish. (Hear, hear.) I believe that is the proper training for a young man who has to enter upon a commercial pursuit, and I believe that well worthy as the experiment is of being tried, which is about to be tried at Leipzig, for as yet scarcely anything is done, and which, I am glad to say, is about to be tried also in London, yet what we have really to look to as the foundation, and, I may say, to a certain extent, also the superstructure of the commercial education, is a thorough training of the mind. One word with regard to modern languages. The first modern language that an Englishman ought to learn is not French or German or Spanish, but English. (Hear, hear.) How often do we find that argument is thrown away upon a young Englishman because he does not understand the value of words. Our great task is to improve our secondary education. Build upon that an experimental commercial school if you like, but look to your secondary education in the first instauce. If you have that such as it ought to be, if you have schools like the London School of Economics, in which young men who are anxious to educate themselves have the opportunity of continuing their education in political economy, in law, and various subjects having a bearing upon commercial life, I believe then you will have done a good work, and one which will bear excellent fruits. (Cheers).

Mr. G. Walter Knox, B.Sc. (Ex-President and Chairman Examination Committee, Institute of Chartered Accountants in England and Wales): Mr. Chairman and Gentlemen, there

are just two points which I should like to refer to, though they do not bear altogether on the two papers which have just been read, and which, I suppose, are more for our information as to what is done abroad at the present time than for any real discussion, except in so far as they relate to the papers which we had before us this morning, and to those which are to follow. We have had a variety of opinions given us on various points, but I think amongst all the differences which have occurred there seems to be one general thought of agreement, and that is, that we ought to have in London a higher commercial college, where the higher subjects of commercial instruction can be given—and to which students from our secondary schools and from our continuation schools may proceed with the view, I hope, of some day obtaining a commercial degree at, say, the London University or the Victoria University. I think that is a matter on which we seem all to be pretty well agreed. I did not gather, as Sir Bernhard Samuelson gathered, from Mr. Bourne's paper, that he would exclude from secondary schools the all-important commercial education. What I gathered was, that he would exclude from secondary schools the commercial bureau or definite technical commercial instruction, but that he would still have, and would extend in those schools, education of a nature which should be the groundwork of the forthcoming commercial education. My feeling is, sir, that we shall never get that commercial groundwork in our secondary schools properly established until we have the Higher Commercial College, which will give a tone to commercial education generally in the country. The division in our secondary schools between the literary or scholastic side and the commercial side, does not redound to the credit of the commercial side. (Hear, hear.) The commercial side is looked upon as being *infra dig.* The boys are invited and trained rather in the direction of the literary and scholastic side, and very naturally; but I fancy that as soon as we have a Higher Commercial College that feeling will pass away and that we shall have given in our secondary schools a good groundwork of commercial education. I quite agree with Dr. Wormell in the remarks at the conclusion of his paper, that it would be as well if some of our secondary schools were wholly devoted to the groundwork for commercial instruction. The other point I wished to refer to was that of the question of book-keeping. I represent here to-day the Institute of Chartered Accountants in England and Wales, and the subject of book-keeping has been touched upon by several speakers. My own feeling with regard to Mr. Bourne's remarks in his paper as to book-keeping is, that I should agree with him if he kept to the age of 15 instead of the age of 17. I think if a youth of the age of 17 is taught book-keeping at all he ought to have some general knowledge of the main principles upon which that book-keeping, whatever the system is, is founded, and I think, sir, that the standard to be taken at our secondary schools with regard to the book-keeping taught to youths of 16 or 17 years of age, might be their ability to pass the Junior Commercial Examination of the London Chamber of Commerce in Book-keeping. There is no doubt that the remarks of one speaker were to a great extent true as to the youth getting hold of a system of book-keeping and saying that his master must be wrong in his methods; but at the same time, there are definite lines which belong to all systems of book-keeping, and which a youth of 16 or 17 should be able to know and fully understand. (Hear, hear.) As the Examiner for the Society of Arts in book-keeping, I have, with my assistants, been through some 3,730 papers very recently. Those papers came chiefly from our continuation schools, and the technical schools in connection with our County Councils, and I must say that there is a great deal of room for improvement in the methods of teaching—not in the teaching of an elaborate system, but in the teaching of the fundamental lines on which all book-keeping goes. So many of the young people seem to think it is a matter of pure indifference whether the capital of a partner should be placed to his debit or to his credit. (Laughter.) Somebody has referred—I think it is Dr. Garnett, but I am not quite sure—to book-keeping as being only necessary for teaching accuracy amongst the younger boys. Now, sir, you can teach accuracy with arithmetic or algebra without troubling them with book-keeping at all, and I would suggest that book-keeping be left alone altogether until they are of such an age that they shall be able to grasp the main and fundamental principles of all book-keeping, and that they should test their know-

ledge by coming up to the junior examination of the London Chamber of Commerce. I will not detain the meeting longer, but I do hope, sir, that some practical result will come out of this Congress—that we shall not have come up here from all parts of the country simply to ventilate our opinions and go home, and the matter go to sleep, but that some efficient Committee will be appointed to take the question in hand, and endeavour out of all this—I will not say discord, but difference of opinion—to find some harmonious solution. (Cheers.)

Mr. Cloudesley Brereton: Mr. Chairman and Gentlemen, I am very pleased to hear what the last speaker has said, and it would be a great pity that so great an array of experts should come here and separate without doing anything. It would be almost as bad as what the famous brave old Duke of York did with his ten thousand men—when having got them together, he merely marched them up the hill and back again. I sincerely hope we shall go further in the matter, and that somebody with more authority than I, will be able to move some resolution to the effect that there ought to be some sort of commercial education started in London, either on the Antwerp, the French, or the German type. As regards the governing body of such a school, I should like to state that in France it is very strongly felt that the majority of Governors on the Board of such a school should be essentially business men. According to my friend M. Jacques Siegfried, a Senator in France, the programme is drawn up by the co-operation of the professional and the business men; the business men stating what they want, and the professional men accepting their suggestions, the business men again checking them if they think the programme is of too abstract a nature. One other point I should like to allude to is this: we have heard a certain amount of talk about the Antwerp Bureau, but I should like to state that French opinion is generally adverse to this system of teaching, and all the Paris schools have given up this "dummy" bureau, as you may call it, because they think it takes a great deal more time than it is worth. A boy who has had a thoroughly good training, and is sharp and intelligent, can pick up in an office in three or six months all that he could learn from this "dummy" bureau. In fact there is a school in Paris—l'école Pigíer—which is a good example of how that can be done, into which boys enter who are going into the lower walks of business, and I am told that in three or six months they entirely master all the routine of the business.

IV.—THE ORGANIZATION OF TERTIARY OR HIGHER COMMERCIAL INSTITUTIONS.

Mr. H. Macan, M.A., F.C.S. (Organizing Secretary to the Technical Education Committee of the Surrey County Council), read the following Paper on "Tertiary Schools of Commerce for England."

The subject of this paper is appropriately dealt with as the last on the Agenda for the Conference, for it thereby obeys the well-known educational maxim of "leading from the known to the unknown." I deal with a type of Institutions at present non-existent in this country, and by the man in the street even unheard of, and consequently use the term "Tertiary" for these schools for a cognate reason. Its meaning—its geological analogy—is well known to the inner circle of educational experts, but probably to most of my hearers it is quite, if not unfamiliar, at any rate disconnected from the violent controversies which rage round any use of, or limitation of, the significance of the words "Primary" and "Secondary." It also has the advantage of being disassociated from the superior and academic significance of the word "University," to which, in reality, it is nearest akin.

A Tertiary School, College, or Institute has been the natural goal of the ambition of the best boys in a 2nd Grade Secondary School. Such lads, leaving their schools at the age of 16 or 17 with a good general education only, and desirous to devote at most two or three years to a direct preparation (or specialization) for a position of importance in a skilled trade or profession, have an aim quite different from that of the youths of 19 who can spare till the age of 23 or 24 to advance their general culture, without detriment to the

development of their muscles, at one of our ancient universities. The nearest approach to this type of education which we have at present is that of the medical student in the Hospital Schools or of the young analytical chemist at the City and Guilds Institute, or of the budding engineer in the mechanical departments at King's or University College.

Practically, all the provincial University Colleges find their chief utility in this sphere, which, until the advent of applied mechanics and agriculture, was considered quite alien to the ideals of Oxford and Cambridge, but is now invading even those sacred preserves. The word tertiary, therefore, implies an education higher than secondary, not entered on before the ages of 16 or 17, yet full and complete in itself, occupying the whole time and attention of the student. Its object is not mainly intellectual, nor in any sense social, but its tendency is, above all things, industrial. It is plain that for the purpose of commerce we must enlarge and exalt these older associations with the word tertiary. The wealthy merchant sends his sons to first grade schools, whose modern sides are at least as applicable as a preparation for our purpose as are those in the second grade establishments. We must show him that we are presenting under this title an educational career no less worthy of the highest recognition, and possibly more suitable to the pressing needs of the nation, than the avenues to the services and professions through which are passing the children of his relations and friends. There must be nothing "second class" about our associations.

Having defined our term of reference, the problem can be tackled in detail as to the connection, if any, which such schools should have with English education as at present carried on.

I propose to consider it under the following heads:—

(1) Why are there no Tertiary Schools of Commerce in England?

(2) Are such schools desirable?

(3) If so (*a*) For whom should they cater?
(*b*) What should they teach?
(*c*) Where should they be situated?
And how should they be organised?

Just a word of warning at starting. Throughout this paper I am considering the case only of *scholars in schools*, *i.e.*, of those fortunate enough to be able to complete their education before entering on profitable employment. In no way am I disparaging that supplementary education, often as valuable, often teaching the same subjects by the same methods and with the same teachers, and often reaching the same standard, which is so freely offered by bodies of Polytechnic rank to those prematurely thrown into the business of life. Because I am not called upon to discuss this work, of the highest value though it be, it must not be presumed that I disparage it and thus fall into the fatal error of those who would separate technical from secondary education.

Section I.

There are two main reasons why there are no such higher schools, colleges or institutes for *commercial purposes* in England.

First, it is only within the last few years that our secondary schools, with a few notable exceptions, have given the necessary preparation for such a school, and there is still a lamentable deficiency of secondary schools properly developed on the modern side.

The wealthy parent also, with a place in his business ready prepared for his son, has considered that the battles of the market and the exchange are to be won, like Waterloo, on the playing fields of Eton.

The schoolmaster, again, clinging to old traditions of "form" of culture and of repute, has fallen in with this same idea. Knowing that we have (and I hope will always keep) the finest public schools in the world of the first rank existing for the purpose of turning out the "scholar and the gentleman," both parents and schoolmasters have forgotten that this mediæval armour, graceful and charming for the

public life of our *own* country, is useless against the weapons of precision of the Continent. Two prime factors, the growth of joint-stock companies and similar co-operative enterprises, and the drawing together of countries by improved means of communication, have changed the whole conditions of commercial rivalry.

The technical educator is much to blame in the same connection. He has tried to force the secondary schools into being a preparation for commercial life, instead of only a preliminary to commercial instruction. To call Modern Languages, Shorthand, Book-keeping, Natural Science and Geography as taught (and as they should be taught) in a secondary school, "Commercial Education," is a confusion of terms and a sure method of alienating the practical educationalist. The modern side of the secondary school is not orientated towards commerce itself, but fits some of its pupils for the Tertiary Commercial Institute. Therefore it is useless to teach in it a modern subject by means of a commercial application. As Mr. Eve, who speaks with great authority on this subject, said at the International Congress: "A boy who can turn Lessing's 'Laocoon' into good English will not take long to learn how to 'apologise for delay in the execution of your esteemed order.'"

The merchant in high places has perhaps been the worst offender. Rule of thumb, opportunity and industry without intelligence, have been his fetishes. Did not Dick Whittington come to London without Commercial Education? Is not the proud after-dinner boast still heard among successful men, "I came to London, Sir, without sixpence in my pocket, and look at me now!" But most of all, the merchant looks back upon certain piratical seamen of the Elizabethan period as the founders of our commercial superiority, and feels that there was something in their methods which has not yet altogether gone out of date. As a scoffer has put it, "Luck, pluck, and a not too tender conscience."

But besides these influences tending to keep the schools in the wrong path, there is a second powerful reason why we have not yet developed the Tertiary Commercial School. This is the wrong-headed attitude (entirely unknown on the Continent) of our directing classes towards State-aided educational enterprise. The taint of charity appears to them to be over the work of the State. Its schools and its grants are, they assume, eleemosynary and only for the poor. The dead benefactor must still supply *their* schools; the living benefactions of the taxpayer and the ratepayer are not to be allowed to help *their* children's education. What is the result? Every observer of continental education points out that it is in the highest branches that we are most deficient. We have no trained directors and few trained managers. And yet we go on playing to the gallery, and talking about Technical Education as if it concerned mainly, if not entirely, the "working man." "We have no reason to think," said Sir P. Magnus, Sir Swire Smith, Mr. Woodall and Mr. Redgrave, "that better facilities for technical and scientific training are offered to foreign workmen than are within the reach of our own industrial population." The same thing was insisted on by Sir John Donnelly at the Society of Arts two years ago. Yet we decline to educate our masters; we decline to provide our manufacturers or our merchants with the best of righthand men in the persons of their own children.

Section II.

I now come to my second point: Are such schools desirable in England?

The best answer lies in this Conference itself, as well as in the resolutions of Chambers of Commerce all over the country during the last seven years.

A few extracts from the recent memorial of the Bradford Chamber:—"We desire a "carefully organised system of Commercial Education for the benefit as well of those who "are destined to control the trade and commerce of the country as of those to be engaged "in humbler positions."

Again: "We have in view sons of men of business for whom it should be possible to obtain a yet higher training at University Colleges."

And once more: "The merchant enters his career almost ignorant of the Commercial subjects necessary in his work."

The two papers just read by Sir P. Magnus and Mr. Barlow furnish a further justification for the establishment of such schools. If these things are done on the Continent and in America, we must do them also. It is no question here of the employment of foreign clerks. We are pre-eminently the nation of shopkeepers, yet surely everyone has noticed the large and increasing numbers of foreign names over the doors of the offices of great city merchants. It is true that Sir Bernhard Samuelson, on a recent occasion, said he did not believe in this grade of Commercial Education. But we must remember the occasion, and for whom he held a brief. No doubt certain institutions, finding themselves scarcely able to keep efficient with their present, I admit inadequate, funds, look with suspicion upon a new and expensive charge being (as they suppose) laid upon the Technical Instruction grants. Sir Bernhard's argument, that one cannot produce a foreign merchant who will admit that his success is due to his higher education at such schools, is one brought against every kind of Technical Education. The farmer always wants to know where the man is who has been enabled, by agricultural colleges, to make farming pay when wheat sells at under 40s. a quarter. No self-respecting man of business ever admits that his success is due to anything but his natural shrewdness. But our foreign competitors, if they did not find their higher schools useful, would have long ago dropped them. On the contrary, in 1886, there were five only of this type in Europe. Now, there are eleven in France alone, and about as many more elsewhere on the Continent. In industrial, as in actual warfare, it is not wise to allow your theories (if never put to the test) as to the inutility of the large ships and great guns of your rivals to drive you into making provision to meet them with torpedo boats alone; your theories may possibly be wrong. Therefore, theoretically desirable or not, we must establish these schools.

Section III.

Now for the Schools, Colleges or Institutes themselves.

(*a.*) For whom should they cater?

The Paris Chamber of Commerce in 1881 started the High School of Commerce principally for the *sons of merchants*, of whom formerly very few used to follow their fathers. In England, where business is hereditary, this forms still more the necessary class. As Dr. Rendall, Headmaster of Charterhouse, has well put it—"In the offices of "merchants, the boys who obtained places carrying the promise of promotion to the position "of trust and profit, were nephews or cousins or sons of one of the partners in the firm; these "boys obtain places by means of this influence which would be denied to those of superior "training."

Why any longer divorce influence from superior training?

It is only when the man of influence (and money) realises by experience himself that the training is necessary that he will look for it and reward it well in the persons of his employees. Persons SEEKING employment are not those for whom these schools are primarily intended, but those for whom employment is ready FOUND. I say primarily, for the union of day systematic education with evening supplemental instruction, is the keynote of most of our Modern University Colleges. I therefore disagree with Mr. Sidney Webb's view that we want chiefly to assist the clerk, and that therefore this grade of education must be cheap and consequently highly endowed. That the clerk on £100 a year may, by study at evening classes, get £150 is a most laudable object, but its attainment will not give England the commercial supremacy of the world, nor will the clerk get his £150 if his employer does not know how to appreciate his extra knowledge. It is the "*Directors of Commerce,*" the Merchants, the Bankers, the Stockbrokers, the Railway Chiefs, the Insurance Experts, who will send their sons and successors. But are the persons of scarcely

less importance, those with brains but no money, the "*Managers of Commerce,*" to be excluded? In these days, when everyone turns himself into a Company as soon as possible, this class, numerically small, is very important; for them there must be places found in the Colleges, places endowed by means of scholarships, but, unlike those for the lower walks of industry, such scholarships should be few and valuable. From this class are drawn many of our actuaries and patent agents, as well as the pioneers of commerce, in newly-opened foreign countries. I fear the day when in England, as in France, the diplomatic and consular service will be careers open to the pupils of such schools is still far distant. Something must be left for Eton and Harrow.

(*b.*) The next point is: What should these schools teach?

Imprimis, they should *not* teach for examinations. Their subjects should not be such, or be taught in such a way, that any kind of examination, other than seeing the pupils at work and inspecting their books, should be able to test the knowledge gained.

There should, however, be an entrance examination, and this a reality. No pupil should be admitted under 16 or 17 years, and who is not able to pass in the following subjects:—One Modern Language, known thoroughly, both from the literary and conversational point of view. Next, Natural Science, at least chemistry and physics, up to a good standard, on the lines approved by the East side of Exhibition Road, as well as by the West, thus qualifying the pupil to understand (if not to perform) the practical methods of analysis or detection adopted with a view to distinguish various articles from their imitations. We must have Mathematics sound but elementary, but not even the classics of the apothecary's shop. Add to these Physical Geography, and enough Modern History for the intelligent understanding of Foreign Politics, and the College will have a student fitted by his previous secondary education to take advantage of a specialised training. The first question asked of each student after his matriculation should be, for what career he is preparing. This will determine his subjects from the beginning to the end of a two or three years' course of work. There will be no time for subjects "banging in the air," no time for picking up the threads of an imperfect secondary education, no time for "culture rare." There will, however, still be room for evening extension lectures for these purposes, but the room will be elsewhere.

I have heard it said, and with considerable truth, that the keynote of commercial education in the primary stage is Shorthand, in the secondary stage Modern Languages, and in the tertiary stage Political Economy. I dissent, however, from the final assumption. For the tertiary school, as I conceive it, the keynote is Geography, while Political Economy goes one stage higher, and is the staple for post-graduate study for the workers in our laboratory of commercial research.

Hence the foundation of the studies of many of the students will be *Political and Commercial Geography.* As Sir John Gorst well put it the other day—"What is the use of talking about 'open doors and spheres of influence,' if we don't know how to use them when we get them?" Trade-routes, ports, and means of communication, are all important pieces of knowledge. The questions discussed by Lord Salisbury with a deputation the other day, as to the highly improper behaviour of Chinese rivers in running through deep ravines in the British sphere of influence, yet admitting of being crossed by railways in the cases in which they pass through the Russian sphere, should be facts well known to all the students. Colonial expansion—the opening up of new countries—which, after all, constitutes one of the branches of commercial (Max O'Rell adds, "and missionary") activity in which English national characteristics will always make us pre-eminent—must be carried on now with such a regard to geographical considerations as will always secure for us the best slices of every European acquisition and partition.

Closely allied to this subject are those which may be called "*Articles of Commerce*" and "*Commercial Law.*" As to "Articles of Commerce," comprising the products and manufactures of each country, its imports and exports, and the local

conditions which determine these matters, it is unnecessary to dwell upon the importance of such a subject. Just as Geography will require numerous maps and models so will this subject require a whole series of small museums, for ever recruited by the local Chambers of Commerce with new specimens of those goods which hold the foreign markets. Careful instruction should be given here as to what products certain countries cannot furnish, and as to the places where British high-class goods are valued in distinction to those which like their goods cheap, and do not mind their being adulterated. "Commercial Law" would comprise all those questions of Preferential duties, open and treaty ports, sugar bounties, "Dingley" tariffs, and "contraband of war," with which we are familiar in the foreign politics of the day.

I am not quite certain as to whether some History should not be taught; if so, it should be fairly modern—not drawn from text-books, but from newspapers; and its syllabus should be revised more frequently at any rate than have been, we understand, the science syllabuses in vogue in a certain university. It should not, however, degenerate into Politics, and might avoid allusions to "mailed fists" and "risks of war."

The above subjects would form the *staple* of the education of the future *merchant.*

His remaining time would be divided between the study of one or more foreign languages, such as Spanish, Russian, Japanese, or Asiatic or African dialects, all dealt with from a purely commercial and not a literary point of view, and *Commercial Arithmetic* and Mathematics dealing with foreign systems of coinage, weights and measures and rates of exchange. Possibly some subject of *Technology* relating to his future trade should be added.

The future bankers, brokers and actuaries would of course pay but little attention to the two subjects of "Geography" and "Articles," at any rate. Much of their time would be spent in what is called on the continent the "*Commercial Bureau,*" practically a large Hall of Exchange or Temple of Commerce, as Dr. Wormell has it, where each pupil represents a whole firm and all its employees, and carries on with others the whole of the trading operations necessary for such a firm, besides keeping all its books. In this work the future merchants would of course participate. Business methods would here be taught rather than the business facts or details of specific businesses, while the preparation of trade catalogues for foreign use should not be neglected.

"*Political Economy*" for this second group of pupils would be an important subject. But it should be taught not with a view to illustrating the rival theories of historical economists, but rather the bearing of Political Economy (when properly applied) upon questions of insurance, banking, tariffs and the general use of statistics. The vital question of old-age pensions, for instance, cannot be dealt with, whether from the point of view of the employer, the insurance office, or the friendly society, without a fair knowledge of this subject. Close akin to this and to Commercial Law is the subject of "*Factory Legislation,*" with which every employer of labour should be made familiar. "*Accountancy,*" "*Banking*" and "*Insurance*" are naturally highly specialized subjects, which would be taken in their third year by persons entering into these employments; they should be taught after the other subjects, and at a considerable less expense of time.

(*c.*) We now come to the final practical question as to where these Tertiary Schools, Institutes, or Colleges should be situated, and how they are to be organised. I have no doubt whatever that the *locus* must be similar to that of a university college, and, where such colleges exist, in close connection with them.

The large county boroughs—Leeds, Manchester, Birmingham, etc.—are the proper places for such schools, of which there might be for many years not more than ten outside London. As to London I have a definite plan to formulate. I use the term London in the only sense possible for the requirements of the *highest* education, *i.e.*, as including all the suburban towns and districts within, say, the 30-mile limit of the London University Bill.

In the administrative county itself I would have a large Central Institution, a constituent college in this teaching university, linked with the Chambers of Commerce and in contact with the Foreign Office, Colonial Office and Board of Trade: this should be Imperial in its range of subjects and studies. Its libraries and museums should be directly fed and provided for by the Government, and our Consuls abroad should act as its collectors. Libraries of reports and museums of articles of commerce, I may say, should be the leading practical feature of all these colleges. The rest of their buildings need only consist of simple class-rooms, fitted up as offices, together with the Central Bureau or Hall of Exchange. I can conceive worse uses for the Imperial Institute than to be made the home of the Central London College of Commerce.

The London School of Economics might well be merged in this college, but, considering the width of its range, it must be able to keep its separate identity. Hence, I propose that here we should have, in one respect, something different from all the other colleges: namely, a department of *Post-Graduate study*, devoted to theoretical and higher questions of economics and semi-political research. The ordinary student would know nothing of this, but here would be the training school for the commercial teachers of the future. On this question I shall say a few words later, but I entirely concur in the opinion of Mr. J. J. Findlay, Principal of the College of Preceptors Training College, in his report to the Sheffield Chamber of Commerce in 1891, where he points out that the ultimate success of any such scheme must depend upon our (at present non-existent) teachers.

Besides this Central Institution, which should be alike London and Imperial, I conceive there should be two others of somewhat less degree affiliated with it, one to the north of the Thames and one to the south. The situation of West Ham and Croydon respectively would be fairly suitable. These two colleges would not attempt the highest work, and their course of study might conceivably be for two years only. Each of them I should like to attach to a London University College, and would suggest that King's College should take charge of the Croydon Institute, and University College of that in West Ham.

I am perfectly convinced that you cannot do without these subsidiary schools, which, I imagine, are likely to be established before the Central one. Local patriotism must be taken into account in the educational movements of to-day, and is perhaps the most important factor in the supply of funds, if not also of pupils. It is also of the first importance that every Institute should more or less adapt itself to the business of its surroundings; this cannot be, of course, a distinguishing feature of the Central London Institute. It is also very necessary that the Counties which surround or lie adjacent to the borough centres should be partners in these schools. They have, as a rule, most of the suburban residential districts from which and from whose secondary schools the supply of pupils will chiefly come; they also have numerous towns with important commercial undertakings, but too small to support a school themselves. Therefore, let us enlist the Counties and Towns north of the Thames in support of one school, and those to the south in support of another.

I have now only to deal with the vital questions of Finance and Teachers.

The Schools should be erected mainly by municipal effort, of course, if possible, with the aid of the Duke of Devonshire's pious founders. Similar buildings on the Continent have cost anything between £6,000 and £100,000 each, but I do not suppose that any of the English Schools (except the Central) need cost, for erection only, more than £10,000 to £15,000. A building, with its hall, class-rooms, library, and museum rooms for 100 students (non-resident, of course) could well be erected for this sum; £500 to £700 a year set aside jointly by the Town and County Councils concerned will enable the sum to be borrowed on the usual terms.

As to the maintenance, the class of day pupils for whom one proposes to cater would certainly pay from £30 to £50 a year each, and, no doubt, after the first few years,

the fees would produce a sum sufficient for the salaries of the assistant teachers, and to some little extent for general maintenance.

The fitting-up would be expensive, and the salary of the Principal would be a very large item. Two sources of income present themselves here, as elsewhere—Government grants and Local Technical Instruction Funds—and I conceive that both should be employed. I hope, however, the grants will not come to the schools independently of each other, but all through the hands of the Local Authorities, as most of the gravest educational scandals, and much waste of public money, result from dual control, and the playing-off by subsidized institutions of one paymaster against another. I therefore hope, first, that the Local Authorities will guarantee in every case at least £1,000 a year for the Principal; as two or three of them would be combined, this would not constitute an intolerable strain on their pockets; and, secondly, that the Government will pay them a lump sum for maintenance. This might come either out of the University College Grants (of course, to be increased for the purpose), or from new Commercial Grants, on the lines of the Attendance Grants of the Science and Art Department, but paid over *en bloc* to the Local Authority, as are these grants now under that most valuable provision, Clause VII. of the Directory. No private or local body could adequately furnish the schools with the reports, maps, books, models, specimens, etc., necessary for its work; but the Government departments, assisted by our leading Merchants, City Companies and Chambers of Commerce, would here have a most useful sphere of activity.

I am well aware that the prime difficulty lies in the supply of teachers, but the difficulty has been much exaggerated.

In the first place, the permanent staff need not be large, and can be largely recruited in subjects like Geography, Law, or Political Economy from University Colleges. In the second place, occasional teachers, interchangeable between the various schools should, on the continental system, be often taken from the class of men actually engaged in business, or of such men who have retired and become public men of the day. We have all had experience, in matters of Technology, of the necessity, when first starting a subject, of employing the man who is an expert workman rather than a teacher, and of then gradually training our own teachers, and we have no reason to be dissatisfied with the ultimate result. It is of the first importance, however, that, especially at the outset, every person teaching the applied subjects should be fitted to take his place, or, better, should at some time have taken it, at the head of a firm dealing with that subject. We do not want to set up as teachers those who have failed in practice. Of course, also, at first, we shall have to borrow some teachers from abroad, and, no doubt, if we pay well enough, we shall be successful. The Principal is the real difficulty. I know of nobody in England, certainly no one in the scholastic world, suitable for the post of head of even the smallest of these institutes. A combination of Sir John Lubbock and the present Archbishop of Canterbury, with a *soupçon* of Mr. Cecil Rhodes, is what is really wanted. But there is no such person, not even in the House of Commons. The next best thing is to get a really eminent man, who knows everything about something, is an inveterate diner-out, and makes a good after-dinner speech. It may be there are some such present to-day; but I am doubtful as to their price. If, however, caught before they are 40, I have no doubt an adequate supply of a competent kind can be secured.

These are my proposals for the Tertiary School of the future.

They are, I admit, a large order, but I intend them to be so. This country wants large orders. "Meanness" has too long been the trade mark of its educational system. I offer them for practical criticism, as they are intended for practical results.

As an apology, I may say that they are not the views of an amiable enthusiast, but of one who has been privileged in the last seven years to devise the schemes for, to superintend the establishment of, and now to find in successful operation, schools and institutes of

every type from the Higher Grade School to the University College. There have been elements of at least as much originality in them all as in the above proposals. From those, with similar experience, can come those suggestions which will bring the scheme into practical shape, for there is no pretence that what is here set out is more than a bare sketch of the outlines of a great project. Given the right man to work it, and public municipal authorities behind it, there is no reason why it should not do for the distributors of industry what the same agencies have already successfully achieved for the producers.

Professor W. A. S. Hewins, M.A. (Director of the London School of Economics and Political Science), read the following Paper on "The Organization of Higher Commercial Education."

'Higher Commercial Education' Defined.

In modern times we appear to have lost the ideal of commercial education as completely as the art of constructive statesmanship. Many of the old writers on commerce, merchants and statesmen who made possible the vast development of English commerce in modern times, insist upon the importance of special training for the profession which requires 'more worldly knowledge' than any other vocation. Here, for example, is what Thomas Mun says on 'The Qualities which are required in a perfect Merchant of Forraign trade':—

> "1. He ought to be a good Penman, a good Arithmetician, and a good Accomptant, by that noble order of *Debtor* and *Creditor*, which is used onely amongst Merchants; also to be expert in the order and form of Charter-parties, Bills of Lading, Invoyces, Contracts, Bills of Exchange, and Policies of Insurance.
>
> "2. He ought to know the Measures, Weights, and Monies of all forraign countries, especially where we have trade, and the monies not onely by their several denominations, but also by their intrinsique values in weight and fineness, compared with the standard of this Kingdom, without which he cannot well direct his affairs.
>
> "3. He ought to know the Customs, Tolls, Taxes, Impositions, Conducts, and other charges upon all manner of merchandize exported or imported to and from the said Forraign Countries.
>
> "4. He ought to know in what several commodities each country abounds, and what be the wares which they want and how and from whence they are furnished with the same.
>
> "5. He ought to understand and to be a diligent observer of the rates of Exchanges by Bills, from one State to another, whereby he may the better direct his affairs, and remit over and receive home his monies to the most advantage possible.
>
> "6. He ought to know what goods are prohibited to be exported or imported in the said Forraign Countreys, lest otherwise he should incur great danger and loss in the ordering of his affairs.
>
> "7. He ought to know upon what rates and conditions to fraight his ships, and ensure his adventures from one country to another, and to be well acquainted with the laws, orders and customs of the Insurance Office both here and beyond the seas, in the many accidents which may happen upon the damage or loss of ships or goods, or both these."
>
> . . . . . .
>
> "9. He ought . . . to have indifferent if not perfect knowledge in all manner of merchandize or wares, which is to be as it were a man of all occupations and trades."
>
> . . . . . .
>
> "11. He ought . . . to attain to the speaking of divers languages, and to be a diligent observer of the ordinary Revenues and Expenses of Forraign Princes, together with their strength both by sea and land, their laws, customs, policies, manners, religions, arts, and the like; to be able to give account thereof in all occasions for the good of his country.

1. See *England's Treasure by Forraign Trade*, published in 1664, but written not later than 1628.

> "12. Lastly, although there be no necessity that such a merchant should be a great scholar; yet is it (at least) required, that in his youth he learn the Latin tongue, which will the better enable him in all the rest of his endeavours."

This is only one instance out of many which could be given of the high estimation in which merchants used to hold a sound liberal and technical education as a qualification for their profession. It never seems to have occurred to them that success was possible in the absence of special training. I have quoted Mun's observations because they are so much more comprehensive than many modern schemes of commercial education, which, moreover, seem to be drawn up on the hypothesis that no progress has been made in the economic and commercial sciences during the last three hundred years.

By 'Higher Commercial Education' I mean a system of higher education which shall stand in the same relation to the life and calling of the manufacturer, the merchant, and other men of business, as the medical schools of the Universities to that of the doctor,—a system, that is, which provides a scientific training in the structure and organization of modern industry and commerce, and the general causes and criteria of prosperity, as they are illustrated or explained in the policy and the experience of the British Empire and foreign countries. If such a system were established, the education of young men destined for a commercial life would not terminate at an age when the doctors of the future are only just commencing their professional training. They would spend not less than two years, subject to conditions I will explain, in the acquisition of knowledge which can, I think, be proved to be indispensable, and would without doubt increase their efficiency, their usefulness, and their chances of success.

'Higher Commercial Education' a necessity of modern business.

There is certainly more interest in commercial education now than there was five or even two years ago. The most active cause of the change in public opinion has probably been the fear of various forms of foreign competition. It is impossible in this paper and scarcely relevant to the subject of it, to weigh in the statistical balance the numerous, and frequently conflicting, statements which have been made in newspapers and published books. Nor can I enquire, assuming foreign competition to exist to a dangerous degree, how far that result can be attributed to the existence of commercial schools on the continent, and the absence of such schools in England. There are, so far as I am aware, no statistics available which would enable me to separate this influence from the many other influences which have been at work during the last 25 years, to take no longer period, and assign to it, even approximately, its due weight in producing the final result. I prefer to base the claim for 'higher commercial education' on other grounds. It has become necessary in consequence of the great complexity and the world-wide extent of modern commerce. Every year its various departments become more highly specialised. It is no longer possible for the individual merchant, or for small groups of merchants, to acquaint themselves, by personal experience alone, with more than a fraction of the causes which affect the business in which they are engaged. Every possible device must be adopted for stimulating their powers of observation and adding to their knowledge of those causes. Events in the most distant quarters of the world, industrial and commercial movements at first sight unrelated to the concerns of the individual merchant may be, and frequently are, fraught with disaster and ruin to his interests. Every improvement in the arts of industry and commerce widens the area of competition and increases the points of contact between the enterprises of Englishmen and foreign rivals. The watchword of the modern merchant should be '*Toujours en vedette.*'

The Probable Results of 'Higher Commercial Education.'

The grounds for 'Higher Commercial Education' which I have mentioned are common to all civilized nations. The commerce of foreign countries is not so extensive as that of England, but their interest in commerce is not proportioned to its extent. In the case of England, however, there are special reasons for insisting on the importance of commercial education :—

(1.) Other papers have shown the extreme backwardness of England in this respect. Assuming that a sound method of commercial training possesses any utility whatever, it is impossible to justify the present state of things. There should be at least one institution devoted to this branch of education in every trading and commercial city of the first rank.

(2.) If this were so, the results would be far more than commensurate to the effort and the expense of organizing such institutions. Principals and higher subordinates who had been trained there would demand a higher level of education than is at present usual in those they employ. The lower grades of commercial education would thus receive their most effective stimulus, viz., a demand on the part of employers for specially trained subordinates. The influence of a good scheme of higher commercial education would be felt in other directions. It could scarcely fail to bring about an improvement in other agencies for spreading accurate information. Some merchants hope for great results from the establishment of a Government 'information department.' I suggest that merchants already have waiting to be used a vast and almost omnipotent 'information department'—I mean the Press—which could achieve greater results in this direction than any English Government department which could be created. Create the demand for accurate and detailed information about markets, trade and commercial movements, the enterprise of foreign traders in different parts of the world, and such subjects, by training your merchant class, and English newspapers can be trusted to supply what is wanted, more fully, more accurately and more rapidly, than any other State or private agency in the world. The leading English newspapers, indeed, already afford many splendid illustrations of what can be effected by their means. I suspect that what is wanted is not so much more information as the trained intelligence which can see the significance of the information already given. But properly equipped institutions would, I think, contribute to the training of the scientific commercial journalist no less than that of the business man.

(3.) But there is one reason why commercial training should be carried to the highest possible point in England which does not and cannot apply in an equal degree to any other country. The British Empire includes vast territories which exhibit nearly all forms of political organization, and every stage of industrial and commercial development. The consolidation of that Empire, rather than its extension, is the work of the future. Whatever the ultimate form the idea of Imperial Federation assumes, it is obvious that commercial questions and the opinion of the merchant-class will largely determine the policy or no-policy adopted. It is safe to say that at present comparatively few Englishmen are really acquainted with the industrial and commercial circumstances of the British colonies and dependencies.

The Objections of the Practical Man.

It may be objected that medicine and surgery, and other professions, rest upon a basis of scientific truth which can fitly be made the subject-matter of an educational curriculum, whereas the course of business follows no laws which can be readily ascertained or usefully taught. But this objection underrates the extent to which the movements of the world of commerce are capable of and have received scientific treatment. It underrates also the amount of systematized knowledge which we possess with regard to commercial affairs. In the case of foreign countries, particularly Germany,

the amount is very great; and there is no reason why the young Englishman should not commence his career thoroughly well acquainted with the leading features of their industry and commerce, their law and their policy, except that no attempt is made to dispel his ignorance.

Of much more weight is the objection that it is waste of time for a young man to spend two years or so in the acquisition of knowledge which, at first sight, appears to have no very direct bearing on the business in which he is engaged. The best possible training for him, it is said, is to go at once into a merchant's office and take up the practical duties of his calling. I think it is a mistake to regard scientific training and practical experience as alternatives. The one is the complement of the other. More than that, scientific training increases the usefulness of practical experience. Without the former a man may spend years in laboriously and imperfectly acquiring knowledge which can be readily imparted in as many months. He may attach quite a wrong significance to some facts, and fail to notice others which are of vital importance to his interests. The training of the merchant, like the training of the solicitor, the barrister, the doctor, should include the educational curriculum of the schools and the experience of practical business.

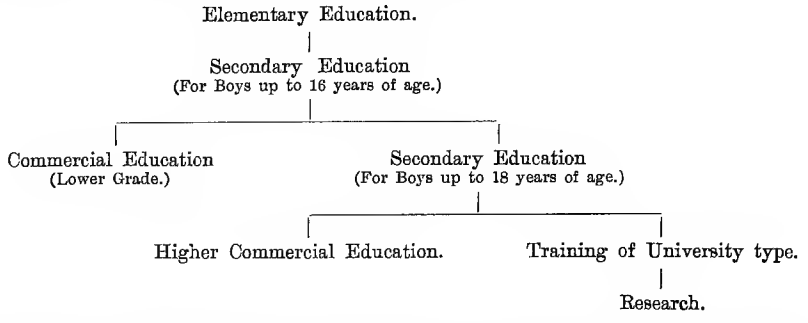
Information *v.* Training.

I doubt whether any man really questions the value of scientific training. If information is to be obtained with regard to the practice of foreign countries, everyone will admit that it is better to obtain that information rapidly and accurately than laboriously and inaccurately. If statistics of trade have to be examined, everyone will admit that it is better to know than not to know the methods of handling statistics. If a man is perplexed by some difficult legal point, such, for example, as the rights of neutrals during a war between two great trading nations, he would rather consult an eminent authority on international law than trust to his own unaided intelligence. The distrust of the English merchant for commercial education arises from the fact that he thinks it a mere 'fad,' and is afraid that a number of busybodies wish to burden the intelligence of the English youth with a number of mischievous notions, and unrelated and useless facts. I trust I have shown that commercial education, so far from being a 'fad,' is one of the vital necessities of modern business. There is this element of truth in the second objection, that it is possible to establish a system of commercial education which is mischievous in proportion to its success. I confess that, in my judgment, some foreign schemes come under this condemnation. There seems to be no particular reason why anyone should benefit from them, no relation of cause and effect between the scheme of training on the one hand and increased efficiency on the other. The syllabus is a mere hotch-potch of miscellaneous information, which must act as a dead weight on the minds of the unfortunate students who are subjected to it. If I may take a mathematical illustration, it is impossible to teach concurrently to the same student quadratic equations and the integral calculus. Still less can the latter be taught before the former. There must be a certain order, sequence and gradation in the commercial syllabus, and the main object should be to train the mind rather than to impart information. There should be no attempt to force a boy who has not matriculated through an Honours course, and, in my judgment, the nature of the subjects we have to teach, not the wishes of the advocates of commercial education, elevates them into the position of an Honours course at the Universities.

The Principles of 'Higher Commercial Education.'

The main principles on which 'Higher Commercial Education' should be organized are sufficiently obvious:—

(1.) 'Higher Commercial Education' presupposes a sound system of secondary education. I may perhaps illustrate the relation between the different grades of secondary and commercial education by means of a table:—



(2.) I have roughly indicated certain age limits. But I do not think it possible at the present time to lay down any general rule as to the age at which people should attend higher commercial courses. It is a question of ability and knowledge, not of age. We find that the vast majority of those attending the higher commercial courses at the School of Economics are over 21 years of age, and already engaged in business. I think the age will fall. Though I have no statistics, I believe the average age of the students has fallen during the last three years. But the degree and the rapidity of the fall depend on many circumstances, chiefly on the efficiency of the system of secondary education, and the estimation in which preparatory training is held amongst business people.*

(3.) The curriculum should be framed with a view to the needs of particular callings. The banker does not require precisely the same training as the railway official, or the insurance employé the same as the merchant. It follows from this that—

(*a*) There is no general commercial curriculum of the higher grade possible. Different branches of commerce and business are, for practical purposes, separate and distinct professions, each one requiring a special type of training.

(*b*) The organization of higher commercial education involves a preliminary classification of employments. This can be revised and altered in the light of experience, but cannot be complete in the earlier stages of organization.

The method we have adopted at the School of Economics is (i) a rough classification, (ii) an extensive programme, (iii) a selection of courses in each case most likely to meet individual needs.

(*c*) The degree of specialization possible or desirable depends upon what economists call 'the division of labour,' the size of the community, the nature of its business, &c. In London, the degree of organization attainable has scarcely any limit, but a good London scheme would not necessarily work out well in a Black Country town, and a scheme attended with beneficial results on the Continent is not necessarily good for England. I do not wish to exaggerate this factor in the problem, but merely to inculcate a wholesome distrust of paper schemes, and to emphasize the desirability of a close and attentive study of the business organization of the community in which the School or Institution is founded.

---

* During 1895–6, and 1896–7, day classes in some of the higher commercial subjects were held at the School of Economics. They were fairly well attended. They were abandoned because, with the means at our disposal we could not afford to duplicate the work of the School, and it was found that most of those attending the day classes could also attend the evening classes. This no doubt involves some loss of efficiency as some of the evening classes become too large.

(4) The general character of the curriculum works out as follows :—

(*a*) Classes arranged as a two-years' course on—

(i) Descriptive and theoretical economics ;

(ii) Economic and commercial history ;

(iii) Statistics.

(*b*) Specialized courses of lectures and classes.

All students should attend (*a*). The specialized courses (*b*) are selected with a view to the trade or profession, or the subject, in which the student requires special training.

I may here point out that at first we made no attempt to induce our higher commercial students to attend the group of classes (*a*). There is in England considerable distrust of anything which can be called 'academic' ; and though these classes never were academic in an objectionable sense, we so far paid regard to English public opinion as to keep the higher commercial department of the school severely distinct from the systematic class-work, and to attempt to teach the special subjects without this aid to efficiency. The results were not satisfactory. We were forced to insist, so far as we can, in the absence of any means of compulsion, on attendance at these classes. We found it to be educationally impossible to deal effectively with the special and more obviously commercial subjects without these classes. The lectures were either not understood, or the lecturer had to waste time and mutilate his course to explain, partially and incompletely, subjects which could only be properly taught in the classes. I therefore consider that we have beyond question demonstrated the utility and the necessity of these systematic classes. They increase the efficiency of the other work ; provide the best students for the specialized courses ; and are the sole guarantee that we have of the fitness of students for special work. I regard the number of students undertaking this systematic training as the best test of the efficiency of a commercial school.

'Higher Commercial Education' and more advanced work.

But I do not stop with the systematization of the commercial courses. Commercial Education will never reach its highest grade of efficiency in an institution which stops short at Commercial Education. The separation of Commercial Education from higher work in the economic and commercial sciences produces a dangerous divorce of the scientific men on whom you must depend for your books, for your investigation, for your generalizations on industrial and commercial movements, from the practical men of business. The commercial institution should be of university rank, and of a university type of organization. It should in fact be the Economic and Commercial Faculty of a great university. The economic and commercial sciences should be pursued to the highest pitch of perfection within the walls of the institution where the commercial training is given. There, not only should men be trained for the business of life, but men should be encouraged to extend the limits of our knowledge. It is only in this way that the best results can be achieved, and 'Higher Commercial Education' be made to rank with the scientific training which is revolutionizing the world.

DISCUSSION.

Prof. H. E. Armstrong, F.R.S. (Central Technical College) : Mr. Chairman, Ladies and Gentleman, I speak with very considerable diffidence on a commercial subject, but I feel that I am in some degree qualified by the experience I have in connection with the chief tertiary school of applied science in this City, that of the City and Guilds Institute, because, coming into contact with students who have gone through very much the same kind of training that those will have gone through who study commercial subjects, one is able to foresee some of the difficulties that must arise in practice. It seems to me that it has been thoroughly shown to-day that we are capable amongst us in this country of elaborating a satisfactory system of commercial education in the future, and that we do not need to go abroad in order to get our information. (Hear, hear.) I think we are not quite as other people. English requirements are distinctly not quite identical with the requirements of foreigners. We, perhaps,

require on the whole less leading than they do; at all events, we think it is very desirable for us that we should be less led. Nothing could be more to the point than the continued insistance on the need for greater thoroughness, and, in the weighty words that have fallen from Sir Bernhard Samuelson, confirmed as they were by speeches which we heard from Mr. Spicer, Mr. Bolton and Mr. Howard this morning, we have a very definite and clear programme to go on. Although I think we ought not to go abroad so often as we do, there is no doubt that we can learn much from foreigners, and we certainly have learned a good deal from the paper by Mr. Magnus on the Leipzig scheme. Sir Philip told us that the Germans have succeeded hitherto without technical commercial training; that is a most important fact which we have to bear in mind in the present discussion. Why is it then that the Germans are seeking to establish this school? I believe the explanation is that it is because they know they have succeeded in manufactures almost in eclipsing the world, one may say, because of their university system, which has enabled them to raise up leaders for their manufactures. They realize that their university system at the present time does not give them exactly the class of men who can do for commerce what the university trained men have done for manufacturing industries. I believe this Leipzig school is intended to work in that direction as an experiment. They desire to associate a commercial side with their classical university. I venture to think that is the important lesson that we have to learn from Mr. Magnus's paper. In this country we wish to establish an ideal professional standard for commerce. Hitherto there has been no such standard, and, therefore, from that point of view the establishment of a tertiary school, or of tertiary schools such as have been suggested, is of the utmost importance to us, as it will have the effect primarily of focussing public attention on the importance of the subject. We know perfectly well that the great development of technical teaching in this country in the past twenty years is the outcome of the establishment of schools such as that of the City and Guilds Institute, and other schools throughout the country. If we get these commercial schools founded, then in the same way we shall have public attention attracted to the importance of training for commercial men. Hitherto, men of commerce have grown up in their business, so to speak, and they have not received that preliminary training which is required nowadays in order to meet the competition of those who are very highly instructed. But we have to bear in mind that we must not attempt too much in this country at the beginning. I am afraid the programmes which are being put forward are somewhat too ambitious. The material that we have to deal with in the higher schools of this country is undoubtedly, so far as training is concerned, very inferior to that which the German has to deal with. Our men of commerce will exercise an enormous power, and do an enormous good in our country, if they take up the matter from that point of view, and insist on a sounder training being given in secondary schools. (Hear, hear.) What Mr. Howard said this morning I think must appeal to us from that point of view. The average secondary school in this country at the present time is not sufficiently doing its duty. Sir Bernhard Samuelson said what is required in our schools in the first instance is that they should study the English language. I can fully corroborate that. During the past dozen years I have had fifty to eighty new students come to me every year, mostly from high-class secondary schools all over the country, and practically I have not been able to get from any one of those men six lines of decent English descriptive of something they have seen or done or heard of. It is nonsense to talk about the value of classical training and literary training when we know that at present that is the kind of result such training produces (Hear, hear); and, I undertake to say, you will be told that such is the case by every university teacher of experience throughout the country. Gentlemen, you must form public opinion on these matters. If you men of commerce recognise that grave faults exist in our secondary schools, and preach that doctrine, and insist on having better prepared men, the battle is won. You will then get a better class of men, who have been so taught at school that they desire to continue their studies; and they will be fit to enter the commercial side of the University and profit thereby. It is from that point of view, it seems to me, that the present movement is of the utmost importance. Mr. Macan seemed to be very sanguine—he is always sanguine, fortunately—that it would not be difficult to find teachers. I venture

to think we ought to go slowly in this matter, and not to attempt too many subjects, or establish false models. We are very likely to go wrong if we establish too many schools, because we shall not get the proper kind of teaching. The subject will be put upon the wrong lines at the commencement. Therefore, whatever is done ought to be done after the utmost consideration. (Cheers.)

Rev. Dr. Robertson (King's College): Sir Albert Rollit, Ladies and Gentlemen, I came here with the intention to learn, and it is only at your request, sir, I have ventured to speak, because I do not profess to be any authority on commerce. I suppose, however, as belonging to the great army of consumers, which is an absolute necessity if the commerce of this world is to go on, perhaps I have some right to a say in the matter. I do not wish, however, to touch on that side of the question. I speak firstly as representing, to some extent, the University Colleges of London. (Hear, hear.) Mr. Macan has sketched out a very tempting sphere of work for the University Colleges of London in connection with the proposed tertiary schools. I think it is not my place this evening to say exactly what the attitude of the University Colleges will be towards such a scheme. If in that way, or in any other way, the University Colleges, consistently with doing their proper work, can forward the great purpose for which this meeting is called together here to-day, I am sure I am not saying too much in promising that they will only too gladly do so. Beyond that perhaps it would be hardly proper to go at the present time. I should just like to mention in connection with my own college that we have been doing for some years a humble, but by no means a useless, piece of work in connection with secondary education. A Mr. Gilbart some time ago left a sum of money for the encouragement of lectures on banking. The endowment is not very large, but it is greatly supplemented by the generosity of a great number of the principal London bankers. They send their employés to these lectures every winter session, and they attend in very great numbers, ranging from a thousand to 1,400. This last session we had a thousand, very many of whom, I believe, had been through a similar course in previous sessions. Of those thousand men, all of whom remember are at work during very long hours in the day-time, 200 went on from the lectures to the examination, which was intended to test how much of the lectures had really gone home. (Hear, hear.) I attach more importance to the fact that 200 went in for the examination than I do to the thousand or more that came to the lectures. I do not, any more than Mr. Macan, worship examinations, but although they are not a good master, they are a very good servant, and I am certain there is no better test of a man's interest and serious devotion to the subject of the lectures than his willingness to subject himself to an examination at the end of them. So much for the University Colleges of London in connection with this subject. We have done at King's as much as I have described, and we are doing perhaps a little more in other branches of the college. If we find ourselves in the future able to do still more we shall most gladly do so. (Hear, hear.) Perhaps it is almost premature to discuss all the details of the proposed schools of tertiary commercial education. I quite agree with Professor Armstrong that any steps taken in the establishment of such schools must be taken with caution; but if after due deliberation we do see our way clear to establishing something of the kind, I think the general consensus of this meeting is distinctly in the direction of taking any step that is possible. Of course there are many questions that arise which will be more profitably discussed at a later stage, but there is one matter I should like to say a word upon, and that is, the selection of material—what students are to go to such tertiary schools of commercial education when they are established. I should like the selection of material to be as comprehensive as possible. I mean by that, not that admission should be easy to all, but that there should be a test, a stringent test, before anyone is admitted to the benefit of the institution. (Hear, hear.) But I should be very sorry if any one type of previous education were favoured to the exclusion of others. (Hear, hear.) For example, certainly we are all agreed that it would be absolute folly to make such a subject as Greek or Latin essential to any part of the course of commercial education. At the same time, I think it would be very much to be regretted if we were not to allow men, who have had even a classical public school and perhaps a University education, if they were drawn towards this particular line of life, to present themselves as candidates for

admission to the higher commercial college, because it takes all sorts to make a world, and to make a commercial world. I am quite certain that, in the long run, the more the truly educated men can be multiplied in the great commercial army of England, the more will it tend towards the establishment, or rather the maintenance, of our commercial supremacy in the world. (Hear, hear.) Putting myself for the moment merely in the position of one of the great army of consumers, when I am meditating any commercial transaction by way of purchase, I am certainly very much influenced by the style of letter I receive. It is not such an easy thing to write a good letter as one might think. I know many men who have not only received a fair education, but are actually engaged in education—very good teachers, competent in their work—and yet the one thing they cannot do is to write what I should call a really good letter. I should like, in conclusion, to make a remark or two, bearing on the whole subject we have been discussing to-day. Why is it we have met together here? Why do we want to consider how we can improve our commercial education and maintain our commercial supremacy in the world? It is a very good thing, but to many of us, and to me certainly, it is of interest mainly as it bears on the wider and more profound subject of the growth or decline of our character as a nation. National character is a very complex phenomenon, and one thing certainly about it is that it is not a stationary thing. National character changes very slowly no doubt, but it does change in the course of ages, and I think we are to value our commercial supremacy in the world, not for the pounds, shillings and pence, or money's worth it brings into the country, but in the long run, as it makes us a truly great nation, and an element powerful for good in the civilisation of the world. (Hear, hear.) I was asking a friend one day, not long ago, a well-informed man, who knew a great deal about the different parts of the world, what was the real explanation of the commercial and general supremacy of the English? He said, "Into whatever part of the world you go you generally find the Englishman takes the lead." He said he had often thought of it, and did not quite know himself. He had asked a friend who knew more than he did, and on the whole he thought the most simple explanation of it was that the world in general was more inclined to believe the word of an Englishman than that of anybody else. I do not at all sympathise with national self-esteem, but I believe there is a great deal of truth in that. We have many national vices, no doubt, but I think if we have any one national virtue it is the virtue of truthfulness. Here comes the conclusion I wish to leave to you. Amongst the national vices there is one which I think is growing, and which requires at any rate to be carefully watched, and that is the growth of the gambling instinct, in trade and commerce as conspicuously as on the racecourse. If we succeed in anything to-day I should be glad if I could think we were doing something towards the strengthening of the national virtue of truth, and the weakening of what threatens to become the subtle national vice of gambling. I am afraid the one will certainly tend in the long run to destroy the other. *Ceci tuera cela.* That is all I have to say. I only hope to-day's proceedings may be fruitful of much good, in more ways than one. I have certainly learnt very much in being present at this meeting to-day, and I am glad to congratulate our Chairman and the Chamber of Commerce upon so successful a meeting. (Cheers.)

The Rev. Canon Fowler, M.A. (Head Master Lincoln Grammar School): Mr. Chairman and Gentlemen, I think we are too pessimistic as regards our education. Our system, I believe, is a very good one, and if there is anything that upsets it, it is the jealousy between the different parts of education at the present day. The Voluntary is jealous of the Secondary, and the Secondary of the Higher Grade, and this is reciprocal. I am very much afraid that if at present we lay too much stress on tertiary education we may increase that jealousy. What we want to do first is to organise secondary education, and secondary masters are welcoming very much the Bill that is at present being brought into the House of Parliament, which, I think, will lessen the jealousy, and we shall be able to go forward. I was much struck with what Professor Armstrong said just now, that we are different from other people. There is one point, however, that has not been touched upon by any speaker, and that is our national shyness. When we talk of other nations learning several languages, and so on, we miss that point. You may say an English boy ought to stand up and speak for an hour, but there is that shyness and undemon-

strativeness that keeps him back. Behind that shyness we have a sort of doggedness of character, and I believe it is that doggedness of character that carries the English nation through in spite of not knowing all these foreign languages. I should like to touch on the question of grants. I believe that no grant ought to be given at present for any special subject. It ought to be given for secondary education generally, and it might be given, *mutatis mutandis*, for secondary education in exactly the same proportion that it is given for elementary education, and, I think, too for tertiary education. (Hear, hear.) I think the Treasury might be much more liberal to education generally. (Hear, hear.) But whenever a question comes up and there is a little opposition, they fight shy of it, and throw the whole thing over for something which is not nearly so important for the nation. I might mention one instance which occurred to me about English boys getting on. There are a large number of works in the town I come from employing 1,400 hands, and one of the heads of the works came to me the other day and asked for one of my boys. He said it did not matter because, if he had a good education he would soon pick up the correspondence, and do as well as a foreign boy. That was a German who asked me for a young boy, and I think that that shows rather how things are tending. (Hear, hear.) I would endorse very strongly what some speakers have said, that the matter should have a practical outcome after this Conference. The London Chamber of Commerce has already tried to do a good deal towards commercial education. The Chamber of Commerce of the town I come from took it up, but on going into the scheme I found it was far too wide and hard a scheme for boys in general. If it could only have been graded and made suitable for lower as well as higher boys, I think it would have worked far better. I hope we shall have something come out of our discussion to-day. (Cheers.)

Mr. Robert Simpson (Headmaster Balham School): Mr. Chairman and Gentlemen, we have had the German ideal trotted out everywhere, but there are two or three points connected with it that seem to have escaped notice. The first is, that the German secondary education system is compulsory. Are we prepared to introduce the compulsory system into England? Only one class of scholar in Germany is excused attendance at the free schools, and that is the children of the aristocracy. Even they are not excused the public examinations, and if they be taught privately must, nevertheless, be presented together with all the children of the same age in Germany for the State examination. In our case, the secondary education children need not commence until 9 or 10, instead of 6, as their German contemporaries, and during these early years are taught anything and anywhere, or nothing at all. Again, the scholars they are compared with do not complete their education until 17 or 19 years of age, whilst the English boys who are compared with them leave school at 15 or 16. Is this comparison fair? From the early years—which are, in my opinion, the most important years of a man's education—you are cutting off three years, and as soon as he begins to do good work you send him to business; and yet, notwithstanding this shortening at both ends of his school life, you expect us to reach the same high-water mark! It cannot be done! One other point is the hours. If we in England wish a boy to do extra work of any kind beyond the five hours per day, we are supposed to be nothing short of slave drivers! Compare the hours in England with the hours the German and French boys work regularly every day! There it is a national matter that the work which the teachers think necessary shall be done! It must not only be done from 9 to 12 and 2 to 4, but the boy must be up at seven in the morning, and work until he has done whatever may have been set by the professors. Here it is a perfectly voluntary matter, generally controlled by an over-indulgent mother! We have no over-ruling providence with a "mailed fist"; if the child does not care to work, we are practically powerless. If you will introduce compulsion into secondary as you already have into primary education, and say, as they do in those countries, that unless the children reach a certain standard of educational efficiency, the Army, Navy, Church and Civil Services shall be closed to them, then the improvement you desire may be brought about! In short, fix a reasonable standard, give us the opportunity, and we will produce the scholars! When you have a Government behind you prepared to carry this out, and ready to pay for it, you may fairly expect to compete with the scholars of other nations. (Hear, hear.)

Mr. Vibart Dixon (Technical Instruction Department, West Riding County Council):

Mr. Chairman, Ladies and Gentlemen, as time is so short I will say in one moment what I have to observe in special reference to the provinces. We have rather gathered, I think, that as the outcome of this Conference there may be some practical scheme.

THE CHAIRMAN: A resolution will be moved in a moment on that point.

MR. DIXON: That rather helps me. It is in reference to that matter that I desire to call attention to the position of the provinces. We in the West Riding have been working very much on the same lines as have been adopted in London. We have got to this point, that we have now nearly 1,000 pupils taking modern languages, in evening classes alone. This form of tertiary education—if I may so describe it—which is being given to persons, mostly adults, already engaged in commerce, is largely developing, and I think it is clear that it must be provided for locally, because these people cannot go a great distance from their work to receive instruction. Then we have in our Grammar schools a species of evolution going on in the direction of laying a better foundation for commercial education; and in both directions we have arrived at the point that we require something in advance of anything as yet provided; consequently, we are watching your scheme here with much interest, for we wish to know what you will be able to give us. I think evidently one thing will be what Mr. Armstrong mentioned as of great importance, namely, an ideal or standard to work to, and that, I should hope, would raise the tone of the education which will be demanded in all parts of the country, and so operate to retain the pupils longer at the secondary schools. That is an important point. Then we may look to you in London to assist us in the special training of teachers. That is a matter we have also been engaged upon for some years, but it would be greatly helped by really first-rate schools in London. Thirdly, I think we should like to send you some of our advanced pupils for highly specialised work; it would be evidently cheaper for us to do so, and I imagine it would be an advantage to the London schools if the pick of the country students should be brought there to be trained. Therefore, I hope in any scheme which may be formed as the outcome of the Conference these matters may be carefully considered, because, though a great deal is being done in the provinces, there remains much more to be done, both locally and in connection with central institutions in London. (Cheers.)

THE REV. C. W. BOURNE, M.A.: I just want to interpose to disclaim the credit which Canon Fowler placed on my shoulders, which I do not deserve. The scheme of the Chamber of Commerce was completed before I left Scotland, and I have no credit at all in connection with it. I have had the honour of being able to assist in the working of it since. (Hear, hear.)

CANON FOWLER: I am very sorry if I misunderstood my learned friend Mr. Bourne about it. I should like to explain that it is only with regard to the provinces and not with regard to London. I still hold my opinion as far as I know, but I did not mean to allude to London in the very least.

THE CHAIRMAN: With regard to the provinces, a great deal could be said about them. The scheme has been in force not only in this country and in many centres, but has been adopted in Bombay. With regard to its difficulty, I may say at once that the commercial view is, after full consideration, that it is not too difficult, and we do not mean to lower it. (Cheers).

MR. JOHN ARTHUR BROOK: Mr. Chairman and Gentlemen, I rise to propose "That this Conference thanks the London Chamber of Commerce and its Conference Committee for having brought together so representative a gathering of those interested in the advancement of Commercial Education in the United Kingdom; and asks the Chamber and the Conference Committee (with power for the latter to add to its number) to pursue their work to formulate and carry into effect the general resolutions of this Conference." I move that in a very few words at this late stage of the proceedings. Coming from the West Riding of Yorkshire, I feel that a Conference of this kind has been and should be of the utmost value to us. What we want in the West Riding of Yorkshire is more help and guidance at the present time than stimulus. Perhaps it is hardly known here what an immense amount of interest, and what large sums of money, are being spent in our Northern towns on this higher education. We have, in the first place, our County Councils. Mr. Dixon is the Secretary of the Educational Committee for the West Riding County Council, which spends the whole

of what is called "whiskey money" on education—as I think most wisely. The County Councils of our great boroughs do the same, and beyond that, they are prepared, and are preparing, to spend money out of the rates for the same purpose. In Manchester, Bradford, and Dewsbury, the higher technical commercial schools are being what is called, to use an ugly word, municipalized. In Huddersfield we have spent, entirely in voluntary contributions, between £40,000 and £50,000. When I say entirely, I refer, of course, especially to the fact that we have been helped by the Clothworkers' Company, and that we have received some small help from the Science and Art Department. But I feel that what we want now is the time to meet together in this way and consult how these institutions should be managed, more especially how they should be co-ordinated one with the other—how these higher technical schools should be co-ordinated with the higher grade Board Schools, with the Endowed Grammar Schools, with the Universities, with the provincial Universities, such as Victoria, or the great Universities of Oxford and Cambridge. In all those matters I think we want the advantage and guidance of some central body, such as under your able guidance to some extent has been called together here to-day. Therefore, coming from the provinces, I feel personally—and I hope I am speaking for all here present—that we do thank the Chamber of Commerce for having brought us together, and I hope you will prosper and set us a good example.

Mr. George N. Hooper (Member of the Council of the Chamber and also of its Commercial Educational Committee): Mr. Chairman and Gentlemen, I beg to second the Resolution which has been so ably proposed from the other side of this Council Chamber. I cannot help thinking from the full attendance at this Conference, and from the ability with which the papers have dealt with the subject, and the admirable discussion that has taken place, that many are impressed with the necessity of now acting, and this Resolution will put the matter into a practical shape for dealing with it. As I know something of what has led up to this Conference, I will give you a few details, which may perhaps encourage you to press on with this important national question. The London Chamber of Commerce appointed its special Commercial Education Committee about eleven years ago, and it has continued its sittings monthly since that time. Its expenditure on the movement at the present time amounts to between £300 and £400 a year, so that not only have its members given their personal services in advancing this question, but the Chamber has given money as freely as its funds will allow, in consideration of its great national importance. You must not imagine that this great and important Conference in the heart of the commercial centre of this Empire has sprung up suddenly and without careful preparation. It is the result of several other smaller Conferences, and of eleven years' steady and persistent work. The smaller Conferences have been attended by merchants, manufacturers and school masters, and a large amount of information has been given to merchants with regard to what is possible and desirable to be done, and a great deal of information has been given to the head-masters of public schools as to what results merchants and manufacturers require. In addition, the London Chamber of Commerce has held annual examinations for a great many years. Although the numbers have fluctuated, they have steadily increased. This year we have had a great many candidates, and never had so many successes. For some years the Lord Mayors of London have placed the Mansion House at our disposal for the distribution of the prizes (Hear, hear), and on a recent occasion the Princess Louise, who takes great interest in promoting education in this country, distributed the prizes, and some special prizes were founded bearing her name. I should like to take this opportunity of saying a few words with regard to what has fallen from Professor Hewins in the last paper which has been read, in relation to the specialization of studies. More than twenty years ago I went to Paris, with a deputation of the Council of the National Federation of Employers with a view to ascertain what was the French law with regard to the settlement of commercial disputes by conciliation and arbitration. During that visit I was told that the trades of Paris were grouped and classified to facilitate the choice of experts in each trade. It appears to me that the idea might be taken up with advantage in relation to advancing this question of Commercial Education. If the trades of this country were classified, and dealt with according to the requirements of each, there might be certain groups of studies

selected as suitable and advantageous to the students in relation to their various occupations and industries, they may be afterwards divided and sub-divided as often as is found necessary, according to the experience and recommendations of the experts engaged in each trade. There are two systems of grouping these trades: mineral products, animal products, and vegetable products. You have there the basis on which to found a certain amount of instruction in regard to the nature and qualities of those different products. There is another method of classification, namely, the house, clothing, and food. Which is the better of the two, enquiry and experience would prove. I think either would be effective. Add to these the great and important subjects of transport by water and transport by land, and I think you nearly cover the whole ground of commerce and manufacture. I hope Professor Hewins may be able to assist us in connection with that matter of grouping and classification, as he has had great experience, and I believe I have indicated a means of making this specialization. (Cheers.)

The Resolution was carried unanimously.

Mr. W. T. Rowlett (President, Leicester Chamber of Commerce, and Chairman of Leicester Technical and Art Schools): Mr. Chairman and Gentlemen, the Resolution I have the honour to propose is, "That the thanks of the Conference be, and are hereby, given to the Lord Mayor and Corporation of London for their courtesy in permitting the use of the Guildhall for the Conference." I had not intended to address this meeting to-day, as I had come up to learn and not to teach. From the papers I must say I have learned a good deal. What we have listened to to-day will be of the greatest possible service to us in helping us to carry on commercial education. I have been closely connected with technical education for the last fifteen years in my town, and we have just opened a large school there at the cost of £30,000, and we are doing very good work. But like everyone else connected with technical education, we feel it is incomplete without commercial education, which is for the distributing part of commerce what technical education is for the productive part. (Hear, hear.) We have had the greatest possible pleasure in listening to all the papers and speeches, and I am sure that this resolution will meet with your approval. (Cheers.)

Mr. J. M. Hutcheson (Greenock Chamber of Commerce and Manufactures): Mr. Chairman and Gentlemen, perhaps, as I am the only Scotch delegate who has opened his mouth to speak to you to-day, I may be allowed just a single word to make myself known. I have been interested in educational work of all kinds since I was a very young man, and on our Burgh School Board for six years at the beginning of the existing system, and Chairman for some time until I resigned a year or two ago. I have also been for several years on the Renfrewshire County Committee for Higher Education. During my Chairmanship of the School Board I tried to get the scheme of the London Chamber taken up by the Greenock Chamber of Commerce, but owing to pecuniary and other difficulties that effort failed. It gives me more pleasure than I can express to have been here to-day. Although I fear I may suffer from intellectual indigestion, I have heard so much said and so much read that I confess myself unable to absorb it all. (Laughter.) I trust I may not be thought impertinent in saying that I regret that these invaluable but voluminous papers were not sent to us beforehand in order that they might have been studied leisurely, and that the delegates might thus have come here to accept them as read and confer upon them at once. Having a place of business in London as well as in Greenock, I am enabled to some extent to compare the educational position of the ordinary clerk here with that of his brother in the northern town of 60,000 inhabitants, and I am bound to say that such comparison is not to the credit, educationally, of the former. For instance—to take only one very petty instance—I have been in London now for a year, and I have more than once advertised for a shorthand clerk direct from school, capable of writing 50 or 60 words at least per minute. On several occasions I got no response whatever. I stated no salary, and it might have been £100 a year for all the applicant knew. In reply to my last advertisement I had only two applicants, and I sent for both of them to come and see me. One never appeared, but the other did, and I was weak enough to engage him, but found him sadly unsatisfactory. My experience in Greenock, on the other hand, is this: I have been in business there for over forty years and have frequently visited a night-school where several hundred girls and boys were learning shorthand every winter, and if I advertised, I would

have 10 applications in response for every one I can get in London, and the 10 vastly better trained than the one. This may strike you, perhaps, as apparently due to the fact that labour is scarcer there than it is here, I put another interpretation upon it. Perhaps you will forgive me saying that what seems to me an omission to-day is the want of an expression on this vital point, viz., the impressing upon those present and through the press, upon many not present, the necessity of a higher value being set by parents on education than has yet been customary here, and has a consequence the recognition by those parents and others, of the wisdom of keeping their children much longer at school than they do at present. In Greenock I could take you to a school with a thousand children, where instead of, perhaps, 10 or 20 in what you call the Eighth Standard in London, you can find nearer 120 quite easily. This seems to me the weak point of all this scheme; you are trying to build on an insecure foundation; you not only should do much to stimulate and compel people to attend and take advantage of the secondary school, but also you should do something to change public opinion in London here and throughout England in respect to elementary education, and to make it more highly esteemed. Till this is done, I am afraid you are building on sand. Do not think I do not value—no man can value more highly than I do—the immense labour taken by Sir Albert Rollit, Sir John Gorst (whose recent powerful speech I listened to with great delight), and by the Chamber of Commerce here. As already said, I feel very strongly the importance of the Conference not separating without an expression of determination on our part, when we go to our various places of abode, to thoroughly push the question of building better foundations; it may be *festina lente*, but it is sure if it is slow. The only way in which we can build either a technical or a commercial education worth calling education is by beginning at the bottom and using our influence as citizens to see that our elementary and secondary education is improved and made more thorough, as we have been so well reminded to-day by Sir John Gorst. I apologize, Mr. Chairman, for occupying your time, even for these few minutes, and I beg to second the motion which has been proposed.

The Resolution was carried unanimously.

Mr. J. S. Redmayne, B.A. (Goldsmiths' Company's Technical and Recreative Institute): Mr. Chairman and Gentlemen, I have been requested to move the following Resolution "That the best thanks of the Conference be given to readers of papers." At this late hour I do not propose to inflict anything like a speech on you, but I may say that the chief value of these papers is not so much the papers themselves as in the fact that they set us all thinking. When you teach anyone to think on any subject you have done a great deal, and my opinion is, that in commercial education when you have taught a lad to think you have more than half won the battle. (Hear, hear.) I am an educationalist myself, but I am rather suffering from the intellectual indigestion which one speaker mentioned. We have heard to-day such a great deal, that it is hard to know exactly what is going to take place after this Conference has gone out of the door, but I do hope that whatever does take place will take place slowly. I represent an institution which has the largest number of commercial students south of the Thames, and my experience there has been over seven years, and I have come to the conclusion that the best reforms are those which take place slowly. There is one danger I would like to point out. Technical education is comparatively very easy to organise. It deals with the artisan. The artisan is the creature of Trade Unions. You can treat him collectively. In commercial education individualism is the whole and sole point of successful commerce, to my way of thinking. It is the individual clerk, the individual energy, which tells in the commercial race. Therefore I think we must not be led away with the ease with which we have, up to the present time, advised technical education reforms for handicrafts, and think we are going to treat commercial education in the same ready manner. There is one thing we must do before we do anything—we must have some statistics and some report on the nature of the raw material out of which our clerks and commercial men are made. How many of our young clerks are the sons of clerks, and how many had artisan fathers? How many men in London have taken up commercial life because they felt called to it, because they are as keen as the painter is keen when he gives up everything for his art? How many men take up commercial life with that motive? Young people drift into offices in London because it

is respectable; it is the top hat and black coat which acts on the Board School boy in the same manner as the uniform acts on the recruit. Therefore I think we must proceed very slowly indeed in making our investigations, and the first investigation should be the nature of the raw material out of which clerks are made. I have much pleasure in moving the Resolution.

Mr. E. J. Crosier (Hon. Sec. Y.M.C.A. Chamber of Commerce, Newcastle-on-Tyne), Mr. Chairman and Gentlemen, it is perhaps fitting that I should second this vote of thanks, for I am not here as a schoolmaster, although I have done my share of teaching; neither am I here as an employer, although I have my share of responsibility in that way. But I am here as a young man representing young men, representing the class whose welfare and interest we have been considering to-day. Therefore, as representing them, I feel glad that you have been kind enough to call upon me to take part in thanking those who have read the papers. I feel in regard to all that has been said to-day, that whatever we may formulate, whatever we may advise, it will fall short unless we stir up in the young people that spirit of earnestness, thoroughness, and determination, to which Dr Garnett referred. I represent the Y.M.C.A., Junior Chamber, Newcastle. We of the Y.M.C.A. believe in work for young men by young men. We believe in that providence which helps those who help themselves. We are now getting into the Fourth Session with the Junior Chamber, discussing commercial questions and doing what we can to pave the way for the time when the London Chamber of Commerce scheme, or some other scheme, reaches Newcastle. With words of sympathy from the older men we have gone on, but the work so far has been entirely done by young men, and we have asked none outside for subscriptions. (Hear, hear.) I feel that in some of the public schools and many other institutions, this paving of the way might be done, and perhaps it might be in order if I send you, sir, just a copy of our rules and constitution; you might find a place for them in the proceedings—that would be for you to decide—but I am glad you have given me an opportunity of speaking for young men and expressing gratitude to those who have read the papers and taken part in the discussion to-day.

The Resolution was carried unanimously.

Sir Vincent H. B. Kennett-Barrington, M.A. (Member of the Council of the London Chamber of Commerce, Incorporated): I rise, Ladies and Gentlemen, to propose a hearty vote of thanks to Sir Albert Rollit for presiding over us to-day. (Cheers.) Sir Albert, as President for many years of the London Chamber of Commerce, has rendered most important services both to the Chamber and to the commercial interests of London. (Cheers.) He has devoted a large amount of time and attention to the important matter we have been discussing to-day. By presiding he has added one more to his long list of services, and we thank him cordially for it. Gratified you must be, sir, at seeing and welcoming so many eminent authorities on this matter at the invitation of the London Chamber of Commerce, and gratified we all are at seeing you in the chair. (Cheers.) We thank you most cordially for your services. (Cheers.)

Principal J. Viriamu Jones, M.A., B.Sc., F.R.S. (University College of South Wales): Ladies and Gentlemen, I find it a great privilege, as the only Welshman who has spoken to-day, to have the opportunity of seconding this Resolution. Many of us have come a considerable distance to attend this Conference, to hear the papers, and to hear the expression of opinion upon a very important practical educational question. I think we shall all go away with the feeling that we have greatly profited from those papers and expressions of opinion. We are very grateful to the London Chamber of Commerce for having given us the opportunity of discussion, and very grateful to you, sir, for the part you have taken in the chair and for your no small contribution to the work of this Conference. (Cheers.)

The motion was carried with acclamation.

The Chairman: Sir Vincent Barrington, Professor Jones and Gentlemen, it has been to me a very great privilege to have had the honour of presiding to-day, and when we speak of the credit of any results which may ensue from this Conference, you must allow me to share those thanks you have been good enough to accord to me, with the Conference Committee, who have devoted an enormous amount of time to this matter (Hear, hear), and especially with the educational experts—and notably among them my friend Mr. Bourne—who have been constant attenders on our Committee, and have

given us the most valuable help. I do not think I should be doing justice unless I also said that, so far as the details of this Conference are concerned, Mr. Medhurst, one of the staff of the Chamber, has given a large amount of time and a great amount of industry and energy, in carrying them out. (Cheers.) I think I gather from your vote that the arrangements have been satisfactory, and I hope they will lead to practical results in the interest of public education. (Cheers.)

The proceedings then closed.

LIST OF DELEGATES, WITH NAMES OF BODIES REPRESENTED.

Aberdeen Chamber of Commerce . .	Thos. Ogilvie, President. Rt. Hon. James Bryce, M.P. Captain D. V. Pirie, M.P.
Aldenham School	Gerald Buxton (Master of the Worshipful Company of Brewers).
Aske's Haberdashers' Hatcham School	Rev. E. Pope, Chairman. J. Lobb.
Association of Chambers of Commerce of the United Kingdom	G. T. Harper, J.P., Southampton. B. F. Stiebel, Nottingham. Alf. Emmott, J.P., Oldham.
Association of Directors and Organising Secretaries for Technical and Secondary Education	C. H. Bothamley (Chairman), Somerset County Education Committee. W. Vibart Dixon, West Riding Offices, Wakefield. J. H. Reynolds, Director of Technical Instruction, Technical Municipal School, Manchester. J. H. Nicholas, Honorary Secretary.
Association of Technical Institutions	The Rt. Hon. Sir Bernhard Samuelson, Bart., F.R.S., President. Professor F. G. Ogilvie, M.A., B.Sc. (Principal, Heriot-Watt College, Edinburgh). Professor Julius Wertheimer, B.Sc., B.A., F.I.C., F.C.S., Honorary Secretary (Principal, Merchant Venturers' Technical College, Bristol).
Bath City Science Art and Technical Schools	A. Godfrey Day, A.M.I.Mech.E., Director of Technical Education.
Batley Chamber of Commerce . .	Henry Sheard, Secretary.
Battersea Polytechnic Institute . .	Sidney H. Wells, Principal.
Bedford Harpur Trust	Guy Pym, M.P., Chairman.
Bedfordshire County Council . .	H. Blundell, Chairman of the Technical Education Committee. Frank Spooner, Organising Secretary for Technical Instruction.
Birkbeck Literary and Scientific Institute	G. Armitage-Smith, M.A.
Birmingham Chamber of Commerce .	The Chairman. J. H. R. Meyer. Councillor Tonks. R. P. Yates.

Birmingham and Midland Institute	Councillor R. F. Martineau. Simon Leitner.
Birmingham Municipal Technical School	Councillor R. F. Martineau, Chairman.
Blackburn and District Chamber of Commerce (Incorporated)	Henry F. Hibbert, C.C., Vice-President.
Bolton County Borough	W. M. Musgrave, J.P., Chairman of the Technical School. Fred. Wilkinson, F.G.S., Director of Technical School.
Borough Polytechnic Institute . .	Edric Bayley, L.C.C., Chairman. C. T. Millis, M.I.M.E., Principal of the Educational Department.
Bradford Chamber of Commerce (Incorporated)	James Graham (Inspector of Commercial Subjects and Modern Languages to the West Riding County Council). Fredk. Hooper, Secretary.
Bradford Technical College . . .	John Nutter, Secretary.
Brentwood School	Burnett Tabrum. C. A. Fielder. Rev. Canon Quennell.
Bridgend County School .	Rev. H. Enyon Lewis.
Brighton County Borough .	Alderman W. Sendall, J.P., Chairman of the Technical Instruction Committee. Dr. Draper, Principal, Municipal School of Science and Technology.
Bristol Grammar School . .	Robt. Leighton Leighton, M.A., Headmaster.
Broomsgrove School . .	H. Millington, M.A., Headmaster.
Burnley Grammar School . .	The Rt. Hon. Sir Ughtred Kay Shuttleworth, Bart., M.P., Chairman. H. L. Joseland, M.A., Headmaster.
Bury and District Chamber of Commerce	John Hall, President. Councillor Wm. Sykes.
Bury Grammar School	Rev. W. H. Howlett, M.A., Headmaster.
Cardiff County Borough Technical School	F. J. Beavan, J.P. Councillor Hallett. J. Austin Jenkins, Secretary.
Carpenters, The Worshipful Company of	Wm. Ping, Carpenters' Company's Technical School.
Central Foundation Schools of London	Wm. Houston, Clerk to the Governors. Wm. Teetgen.
Central Young Men's Christian Association	F. Graham. Clarence Hooper.
Cheshire County Council . . .	C. E. Thornycroft. Richard P. Ward, Organising Secretary.
Chigwell School	David Howard, J.P., *Ex-officio* Vice-President of the London Chamber of Commerce (Incorporated). Rev. R. D. Swallow, M.A., Headmaster.
Chippenham and District Secondary and Technical School	E. Newall Tuck, Headmaster.
City of London College	Rev. Prebendary Whittington, M.A., Principal. D. Savage, Secretary.
Clark's Civil Service, Commercial and Telegraph Training College	Geo. E. Clark, Principal.

Clothworkers, The Worshipful Company of	William Latham, Q.C., Master.
College of Preceptors	H. W. Eve, M.A., University College School. Dr. R. Wormell, M.A., Central Foundation School.
Coopers' Company's School	H. S. Samuel, M.P.
Cork Chamber of Commerce and Shipping	W. Lane, President.
Corporation of the City of London	Dr. T. B. Crosby. A. A. Wood, A.K.C., F.C.S.
Coventry Municipal Technical Institute	Alderman Albert S. Tomson, J.P., President. W. A. Pizzie, Vice-President.
Croydon Chamber of Commerce	Councillor Lillico, President. Alderman Sir F. T. Edridge, J.P. } Vice- Alderman Rymer, J.P. } Presidents Councillor Dobson, J.P., Honorary Treasurer Henry Wyndham Down. William Salt.
Croydon County Borough	Alderman Barrow, J.P. Alderman Sir F. T. Edridge, J.P. Councillor Keatley Moore, B.A., B.Mus.
Derbyshire County Council	Evan W. Small, M.A., B.Sc., Organising Secretary to the Technical Education Committee.
Devon County School	Earl Fortescue. The Rev. Prebendary Brereton.
Dewsbury Chamber of Commerce	Fred. Ellis, J.P. Duke Fox. M. Oldroyd, M.P.
Drapers, The Worshipful Company of	Hugh Ernest Vardon.
Dublin Chamber of Commerce	Wm. Field, M.P.
Dudley Chamber of Commerce	The Worshipful the Mayor of Dudley and Chairman of the Dudley School Board (Alderman G. H. Dunn). George Green, Chairman of the Stourbridge Technical Board and Chairman of the Rowley Regis School Board.
Dulwich College	Evan Spicer.
Dundee Chamber of Commerce (Incorporated)	James C. Methven, President. Frank W. Young, F.R.S.E., F.C.S. G. C. Keiller.
Earl's Colne Grammar School	Rev. D. Methven.
East Suffolk County Council	Alderman Frank Garrett, M.Inst.C.E. Councillor W. N. Whitmore.
East Sussex County Council	G. F. Chambers. A. G. Henriques.
Edinburgh Chamber of Commerce and Manufactures	James Anderson, Past Vice-President.
Education Department *(See also Science and Art Department.)*	Michael E. Sadler, Director of Special Enquiries and Reports. R. L. Morant, Assistant Director of Special Enquiries and Reports.
Essex County Council	W. W. Green. W. R. Waller. J. H. Nicholas, Secretary to the Technical Instruction Committee.

Eton College	A. A. Somerville.
Exeter County Borough	Alderman Domville.
Fowey Grammar School	E. W. Rashleigh, J.P.
Girls' Public Day School Co., Ltd.	Wm. Bousfield, Chairman.
Gloucestershire County Council	R. A. Lister.
	John Sawyer.
	M. W. Colchester Wemyss.
Gloucester United Endowed Schools	H. E. Waddy, Chairman.
	A. S. Helps.
	J. E. Turner.
Goldsmiths' Company's Technical and Recreative Institute.	J. S. Redmayne, Secretary.
Greenock Chamber of Commerce and Manufactures	John M. Hutcheson.
Haberdashers' Hoxton Schools	Rev. E. Pope, Chairman.
	J. Lobb.
Halifax Municipal Technical School	F. Whitley Thomson, President.
	J. Crowther, B.Sc., Principal.
Hampshire County Council	J. Bonham Carter, D.L., J.P., Chairman of the Technical Education Committee.
	David Cowan, Director of Technical Education.
Harrow Lower School of John Lyon	A. K. Carlyon, J.P., C.C.
Harrow School	Dr. W. B. Leaf.
Hastings County Borough	The Worshipful the Mayor (Alderman Bagshawe, M.D.)
	Councillor J. C. Burrell.
Headmasters' Conference	W. G. Rushbrooke, LL.M., Headmaster, St. Olave's Grammar School.
Headmistresses' Association	Miss Day, Headmistress, Grey Coat School.
Heath Grammar School	A. W. Reith, M.A., Headmaster.
Heckmondwike Chamber of Commerce	W. E. Clarke.
	H. H. Peel, Secretary.
Hindley and Abram Grammar School	J. C. Eckersley.
Hingham Endowed School	Henry Lee-Warner.
Hitchin Grammar School	J. King, M.A., Headmaster.
	Miss J. E. Gosnell, B.A., Headmistress.
Huddersfield Chamber of Commerce	John A. Brook.
Hull County Borough	James Stuart, J.P., Chairman of the Technical Education Committee.
	J. T. Riley, D.Sc., Director of Studies.
Hull Grammar School	J. E. Forty, M.A., Headmaster.
Hymer's College	Sir James Woodhouse, M.P., Chairman.
	James Stuart, J.P.
Ilkley Grammar School	C. Moeller.
Incorporated Association of Headmasters.	Rev. G. E. Mackie, M.A., Godolphin School, Hammersmith.
	J. E. King, M.A., Grammar School, Manchester.
	Rev. W. H. Keeling, M.A., Grammar School, Bradford.
	Rev. C. G. Gull, M.A., Grocers' Company's School.
	Rev. A. Janson Smith, M.A., King Edward's School (Camp Hill Grammar School), Birmingham.
	F. J. R. Hendy, M.A., Grammar School, Carlisle.

Institute of Bankers	R. Williams, M.P., President. W. T. Agar, Secretary.
Institute of Chartered Accountants in England and Wales	G. W. Knox, B.Sc., F.C.A., Chairman of the Examination Committee.
Institute of Secretaries	John T. Denniston, President. Russell Day, Secretary.
Ipswich Chamber of Commerce (Incorporated).	Ed. Packard, Jnr. Bennell Hy. Burton.
Jersey Chamber of Commerce	J. Le B. Le Maistre, President. J. F. Gaudin, Vice-President.
Joint Scholarships Board	W. P. Sawyer, Clerk to the Worshipful Company of Drapers. Dr. H. E. Armstrong, F.R.S. H. Bendall, M.A., Secretary.
Kendrick Schools	Geo. Wm. Palmer.
Kent County Council	G. M. Arnold, Chairman of the Technical Education Committee. F. W. Crook, Secretary to the Technical Education Committee.
King's College	Rev. Dr. Robertson, Principal. W. Braginton.
King Edward VI. School (Bath)	E. W. Symons, M.A., Headmaster.
King Edward VI. School (Macclesfield)	C. E. Thornycroft, Chairman. W. B. Davenport, M.P.
Lanark County Council	Walter Jas. Houldsworth, J.P., Chairman of the Technical Education Committee of Lanarkshire, and Chairman of the County Committee on Secondary Education. W. Malcolm, M.A., F.E.I.S., Director of Technical Education.
Lancashire County Council	J. A. Bennion, M.A., M.Sc. Director of Technical Instruction. County Alderman W. Lees McClure, Jnr. County Alderman Rev. R. C. Fletcher, M.A.
Lancaster and District Chamber of Commerce	Alderman Wm. Smith, President. N. W. Helme, J.P., C.C., Vice-President.
Leamington County Borough	Councillor Fell, J.P. Councillor Harvey, J.P.
Leeds Chamber of Commerce (Incorporated)	E. Matheson, President. J. W. Willans, Vice-President.
Leeds Institute of Science, Art and Literature	W. H. Barber, B.A.
Leicester Chamber of Commerce	W. T. Rowlett, President.
Leicester County Borough	W. W. Vincent, J.P. J. G. Ward, J.P.
Leicestershire County Council	Thos. Cope, J.P., Chairman of the Technical Education Committee. Benjamin Hurst, J.P., Vice-Chairman. Arthur J. Baker, Secretary to the Technical Education Committee.
Lincoln Chamber of Commerce	Thos. Bell, Senior Vice-President.
Lincoln Grammar School	Rev. Canon Fowler, M.A., Headmaster.
Lincolnshire (Kesteven) County Council	Alderman A. L. Jessopp.

LIVERPOOL CHAMBER OF COMMERCE (INCORPORATED)	P. E. J. HEMELRYK, Vice-Chairman, General Trade Committee, and Chairman of the Liverpool School of Commerce.
LIVERPOOL COUNTY BOROUGH . . .	WM. HEWITT, B.Sc., Director of Technical Instruction.
LIVERPOOL INSTITUTE	W. C. FLETCHER, M.A., Headmaster.
LLANELLY INTERMEDIATE AND TECHNICAL SCHOOLS	JOHN INNES, Chairman.
	WM. LEWIS, B.A., Headmaster.
LONDON CHAMBER OF COMMERCE (INCORPORATED), COMMERCIAL EDUCATION COMMITTEE OF THE	SIR ALBERT K. ROLLIT, D.C.L., LL.D., M.P. (President of the Chamber), Chairman.
	FRANK DEBENHAM, Deputy Chairman.
	E. T. AGIUS, F.S.S.
	C. A. MONTAGUE BARLOW, M.A., LL.M.
	J. A. BENNION, M.A., M.Sc. (Director of Technical Instruction for the County Palatine of Lancaster).
	OSCAR BERRY, F.C.A., C.C.
	T. F. BLACKWELL (Deputy Chairman of the Council of the Chamber).
	S. B. BOULTON (Vice-President of the Chamber).
	REV. C. W. BOURNE, M.A. (Head Master, King's College School).
	J. ANNAN BRYCE (Member of the Council).
	EBENEZER CARR (Society of Accountants and Auditors).
	GEORGE J. COCKBURN (Royal Commission on Secondary Education).
	T. R. CROGER.
	H. L. FEUERHEERD.
	R. S. FRASER.
	LOUIS HENLÉ.
	G. N. HOOPER (Member of the Council).
	W. ROBERTS KNOBEL.
	G. WALTER KNOX, B.Sc., F.C.A. (Institute of Chartered Accountants).
	DR. WALTER LEAF (Ex-officio Vice-President of the Chamber).
	SIR PHILIP MAGNUS (City and Guilds of London Institute).
	J. C. MARSHALL.
	F. OLDMAN, M.A. (National Association for the Promotion of Technical and Secondary Education).
	A. T. POLLARD, M.A. (Headmaster, City of London School).
	J. H. REYNOLDS (Manchester Municipal Technical School).
	DR. R. P. SCOTT (Headmaster, Parmiter's School).
	R. STAPLEY.
	T. A. WELTON (Institute of Chartered Accountants).
	SIR H. T. WOOD, M.A. (Secretary, Society of Arts).
	DR. R. WORMELL (Headmaster, Central Foundation School).

London County Council . . .	T. A. Organ, Vice-Chairman of the Technical Education Board and Chairman of the Special Sub-Committee on Commercial Education.
	J. Easterbrook, M.A., Headmaster, Owen's School.
	Dr. William Garnett, Secretary, Technical Education Board.
London Orphan Asylum	Rev. Dr. Cockrim, Headmaster.
London School of Economics and Political Science	Professor W. A. S. Hewins, M.A., Director.
London Society for the Extension of University Teaching	C. W. Kimmins, M.A., D.Sc., Secretary.
Luton Chamber of Commerce . . .	A. J. Hucklesby, President.
	Thos. Keens, Jun., Secretary.
Macclesfield Chamber of Commerce .	W. H. L. Cameron, President.
	Henry Bischenough.
	R. Brown, Secretary.
Manchester Catholic Collegiate Institute	Rev. Gabriel Xavier, Provincial.
	Rev. J. V. Warwick, Rector.
Marlborough College	Dr. W. B. Leaf.
	C. M. Ball.
Merchant Venturers' Technical College	Professor Julius Wertheimer, B.Sc., B.A., F.I.C., F.C.S., Principal.
Metropolitan E.C.T. Association . .	W. G. Piper-Smith, President.
	H. Hennings, Honorary Secretary.
Middlesex County Council	County Alderman Wm. Regester, Chairman of the Technical Education Committee.
	B. S. Gott, M.A., Inspector of Technical Education.
Midland Counties Union of Educational Institutions	J. Mason.
Monmouthshire County Council . .	T. A. Shegog, Director of Technical Instruction.
National Association for the Promotion of Technical and Secondary Education	Sir Hy. E. Roscoe, F.R.S.
	H. Hobhouse, M.P.
	Wm. Bousfield.
Neath Intermediate School . . .	John Newall Moore, Chairman.
	H. P. Charles.
Newcastle-upon-Tyne Royal Grammar School	Rev. Canon W. Moore Ede.
	S. C. Logan, M.A.
Newport Chamber of Commerce (Incorporated)	Albert Spicer, M.P.
Nonconformist Grammar School (Bishop's Stortford).	Fred. West, C.C., J.P. (Vice-Chairman of the Technical Instruction Committee of the Essex County Council).
	Rev. R. Alliott, M.A., Headmaster.
North Riding of Yorkshire County Council	R. E. Pannett, Chairman of the Technical Instruction Committee.
North Staffordshire Chamber of Commerce	E. V. Greatbatch, President.
Northampton and County Modern and Technical School	Thos. Wetherell.
	R. Elliott Steel.
Northampton Institute (Clerkenwell) .	Dr. R. M. M. Walmsley, F.R.S.E., Principal.
Nottingham County Borough . . .	J. E. Symes, M.A., Principal, University College, Nottingham.

Oldham Chamber of Commerce (Incorporated)	Alfd. Emmott, J.P.
Oldham Municipal Technical School	Alderman Brierley, Chairman. Councillor Rothwell, Vice-Chairman.
Owen's School	Gerald Buxton (Master of the Worshipful Company of Brewers).
Oxford and Cambridge Schools Examinations Board	E. J. Gross, P. E. Matheson, } Joint Secretaries.
Palmer's Endowed School	H. E. Brooks. C. B. Russell. G. H. Silverwood, M.A., LL.B., Headmaster.
Pitman's Metropolitan School	Ernest Pitman. B. de Bear, Principal.
Plymouth Chamber of Commerce (Incorporated)	John Shelly.
Plymouth Municipal, Science, Art and Technical Schools	The Chairman. T. W. Byfield, Secretary.
Polytechnic (Regent Street)	Robt. Mitchell, Director of Education.
Portsmouth Chamber of Commerce (Incorporated)	J. Bonham-Carter, D.L., J.P. John Brickwood. Edwin Hide, J.P.
Portsmouth County Borough	Alderman W. Ward, J.P., Chairman of the Technical Education Committee. Councillor G. E. Couzens, Vice-Chairman.
Portsmouth Grammar School	Rev. Canon Grant, Chairman of the Governors.
Private Schools Association (Incorporated)	Geo. Brown, Vice-President. Rev. J. B. Blomfield, Honorary Secretary.
Queen Elizabeth's Hospital School (Bristol)	Robt. Jackson, Headmaster.
Raine's Boys' School	J. Ashbridge Telfer, Chairman. R. S. Taylor, Headmaster.
Roan Schools	Rev. Brooke Lambert, M.A., B.C.L., Chairman. James Gray, B.A. R. S. Jackson. G. S. Warmington. C. M. Ridger, M.A., Headmaster.
Rutlish Science School	A. N. Disney, M.A., B.Sc., Headmaster.
St. Dunstan's (in the East) Charities	C. M. Stuart, Headmaster, St. Dunstan's College, Catford.
St. Mark's College Upper School	R. Hudson, Principal. Rev. C. S. Dawe, B.A., Headmaster.
St. Mary's College (Woolhampton)	Rev. J. P. Conway, Headmaster.
St. Olave's Grammar School	C. Oscar Gridley, Warden. W. G. Rushbrook, LL.M., Headmaster.
Salford County Borough	Alderman B. Robinson, Chairman of the Technical Instruction Committee. Councillor Frankenburg. W. Wilson, Principal, Technical Institute, Salford.
Salters, The Worshipful Company of	C. A. Kemble, M.A., J.P., Master.
School Board for London	Graham Wallas. Rev. Stewart D. Headlam, B.A. Rev. H. Russell Wakefield, M.A. Major Skinner. Mrs. Maitland.

Science and Art Department (*See also Education Department.*)	Captain W. de W. Abney, C.B., F.R.S. Gilbert R. Redgrave.
Scotch Education Department	Sir Henry Craik, K.C.B., LL.D., Secretary. J. Struthers, Senior Examiner.
Sidcot School	R. E. Gibbons.
Sir George Monoux School	Rev. H. A. Allpass, B.A., Headmaster.
Skerry's Civil Service and University College	G. E. Skerry, M.A., F.R.G.S., F.R.S.L.
Smith and Smart's City Commercial Institute	M. W. Tossell, Principal.
Society of Accountants and Auditors (Incorporated)	Ebenezer Carr.
Society of Arts	Major-General Sir Owen Tudor Burne, G.C.I.E., K.C.S.I., Chairman. Sir H. T. Wood, M.A., Secretary.
South of Scotland Chamber of Commerce	John Sanderson, President.
South Western Polytechnic	H. Tomlinson, F.R.S., Principal.
Southampton Chamber of Commerce (Incorporated)	A. C. Dunlop, President. W. H. Rowland. Peter Stewart, Honorary Secretary.
Staffordshire County Council	J. Wilcox Edge.
Stationers, The Worshipful Company of	H. Chettle, M.A., Headmaster, Stationers' Company's Schools.
Stockport Technical School	R. J. Brown, M.Sc., Principal.
Surrey County Council	E. J. Halsey, Chairman. E. C. P. Hull, C.C. W. Welch, C.C. H. Macan, M.A., F.C.S., Organizing Secretary to the Technical Education Committee.
Swansea Chamber of Commerce (Incorporated)	J. N. Moore. R. J. Matthews.
Swansea County Borough	Councillor Richard Martin, Chairman, Swansea Grammar School. Dr. G. S. Turpin, Principal, Swansea Grammar School.
Tottenham Polytechnic	J. W. Tomlinson, Secretary.
Truro Grammar School	Rev. Canon Woolledge, Chancellor of Truro Cathedral.
Tunbridge Wells, Tonbridge & District Chamber of Commerce	Alan E. Chambre, President. R. A. Robinson, L.C.C. J. G. Passingham.
University College of South Wales and Monmouthshire	Principal J. Viriamu Jones, M.A., B.Sc., F.R.S. T. H. Riches, J.P.
Uppingham School	Rev. Joseph Hooper Maude, M.A., Headmaster.
Wandsworth Technical Institute	J. Saltmarsh, Vice-Chairman. W. T. A. Emtage, M.A., Principal. Henry S. Rowles, Honorary Secretary to the Education Committee.
Ware Grammar School	Walter New, M.A., Headmaster.
Warehousemen, Clerks' and Drapers' Schools	John Roberts, Vice-Chairman of the House Committee. Chas. Collis, M.A., Headmaster.

Warwickshire County Council	Councillor R. P. Yates.
	Geo. St. John, Organizing Secretary to the Technical Education Committee.
Wellingborough Grammar School	Wm. Brown, J.P.
West Ham County Borough	Alderman W. Crow, J.P., Chairman of the Technical Instruction Committee.
	A. E. Briscoe, Principal of the Technical Institute.
West Riding County Council	County Alderman J. Brigg, M.P.
	Wm. Briggs.
	W. Vibart Dixon, Technical Instruction Department.
Wheelwright Grammar Schools	M. Oldroyd, M.P.
Whitechapel Foundation School	Rev. John Draper, Chairman.
	Wm. Minn, Vice-Chairman.
Whitgift Foundation (Croydon)	Rev. H. H. Pereira, M.A.
	Alfred T. Layton, J.P.
Willesden Polytechnic	W. B. Luke, Chairman.
Wilts County Council	Lord Edmond Fitzmaurice, M.P., Chairman.
	W. H. Stanier.
	F. N. Rogers.
	C. H. Corbett, F.C.S., F.E.I.S., Organizing and General Secretary, Technical Education Department.
Wolverhampton County Borough	Alderman Joseph Jones, J.P.
	Alderman S. T. Mander, J.P.
Worcester County Council	George William Grosvenor, Chairman of the Technical Instruction Committee.
Worcester Municipal Technical School	Fredk. Corbett.

SPECIAL INVITATIONS.

AGENT GENERAL FOR THE CAPE OF GOOD HOPE	THE HON. SIR DAVID TENNANT, K.C.M.G.
AGENT GENERAL FOR NATAL . . .	SIR WALTER PEACE, K.C.M.G.
AGENT GENERAL FOR NEW BRUNSWICK .	C. A. DUFF MILLER.
AGENT GENERAL FOR NEW ZEALAND . .	HON. W. P. REEVES.
AGENT GENERAL FOR NOVA SCOTIA . .	JOHN HOWARD.
AGENT GENERAL FOR SOUTH AUSTRALIA .	DR. COCKBURN.
AGENT GENERAL FOR TASMANIA . .	SIR WESTBY B. PERCEVAL.
AGENT GENERAL FOR VICTORIA . . .	LT.-GENERAL SIR ANDREW CLARKE, G.C.M.G., C.B., C.I.E.
ARMSTRONG, J. H. E., F.R.S. . . .	Central Technical College.
BARNES, PROFESSOR	Stanford University, California.
BOND, EDWARD, M.P.	Chairman of the Technical Education Board of the London County Council.
BRYANT, WM. J. D.	Headmaster, Sir Andrew Judd's Commercial School.
BURTON, DR. W. S.	Bristol.
CARTER, H., B.A.	Headmaster, The Foundation School, Whitechapel.
CHETTLE, H., M.A.	Headmaster, Stationers' Company's School.
CLARKE, P. J. HAMILTON	
CROSIER, E. J.	Honorary Secretary, Y.M.C.A., Chamber of Commerce, Newcastle-on-Tyne.
DRAPER, E. H.	Clerk to the Worshipful Company of Skinners.
FLINT, J.	Evening Continuation Schools Department, School Board for London.
GAUTREY, T.	Member of the Commercial Education Committee of the School Board for London.
GILKES, A. H., M.A.	Headmaster, Dulwich College.
GRAY, ERNEST, M.P.	
GREGORY, THE VERY REVEREND ROBERT, D.D.	Dean of St. Paul's Cathedral.
HINTON, R. W., B.A.	Headmaster, Aske's Haberdashers' Hoxton School.
HOLMAN, H., H.M.I.	
HULME, PROFESSOR F. EDWARD . . .	Kew Gardens.
INGE, WALTER, M.A.	Headmaster, Spencer College, Wimbledon.
KAHN, A.	Central Foundation School.
KEYNES, J. N., D.SC.	Secretary for Examinations, Local Examinations and Lectures Syndicate, Cambridge.
LEFROY, W. C.	Charity Commission.
LUBBOCK, RIGHT HON. SIR JOHN, BART., D.C.L., LL.D., F.R.S., M.P.	Ex-Officio Vice-President of the London Chamber of Commerce (Incorporated).
MACNAMARA, T. J.	Member of the Commercial Education Committee of the School Board for London.
MAYOR, R. G.	Education Department.
MUNTHE, D. ÅKE W : SON	Headmaster, Stockholm Commercial High School.

NIXON, ALFRED .	Headmaster, Commercial Evening School and Women's Institute, Manchester.
PERINI, PROFESSOR N. . . .	
PINDER, REV. H., B.A.	Headmaster, Coopers' Company's Grammar School.
POWELL, SIR FRANCIS S., BART., M.P., F.R.G.S.	
REAY, LORD, G.C.S.I., G.C.I.E. . . .	Chairman of the School Board for London.
REDGRAVE, GILBERT R. . .	Science and Art Department.
REINOLD, PROFESSOR A. W.	
RICHARDSON, ERNEST . .	Organizer, Evening Continuation Schools, East Ham School Board.
RICHARDSON, G. N. .	
ROBERTS, SIR OWEN, D.C.L., J.P., D.L.	Clerk to the Worshipful Company of Clothworkers.
RUTHERFORD, REV. W. G., M.A., LL.D. .	Headmaster, Westminster School.
SAMUELSON, RT. HON. SIR B. BERNHARD, BART., F.R.S.	
SAUNDERS, WM. HARRIS .	Royal Masonic Institution for Boys.
SCOTT, REV. DOUGLAS L., M.A., LL.D. .	Headmaster, Mercers' School.
SIMPSON, ROBERT, M.A.	Headmaster, Balham School.
SLATER, A. J.	Evening Continuation Schools Department, School Board for London.
SPIERS, PROF. VICTOR, M.A.	
STANLEY, HON. E. LYULPH	Vice-Chairman of the School Board for London.
STEVENS, MISS K. . .	Hon. Secretary and Treasurer, British Child Study Association.
SWITHINBANK, DR. G. E., F.C.A. .	Member of the Council of the Institute of Chartered Accountants.
SYMMS, REV. J. E., M.A. .	Headmaster, Bancroft's School.
WHITE, H. G., F.I.S. .	Secretary, Corporation of Accountants.
WHITFIELD, E. E., M.A. .	
WILLS, SIR W. H., BART., M.P.	
WOODALL, WM., M.P., J.P. .	
YOUNG, SIR GEO., BART. .	Charity Commission.
YOXALL, J. H., M.P. .